KURSK 1943

The Southern Front

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ILLUSTRATED BY GRAHAM TURNER

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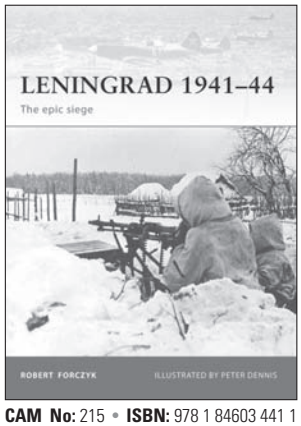

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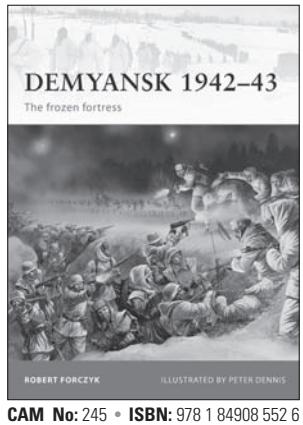

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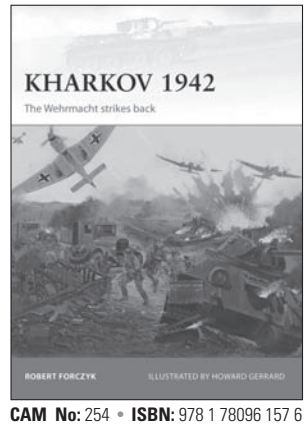

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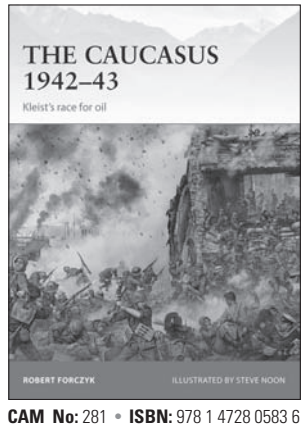

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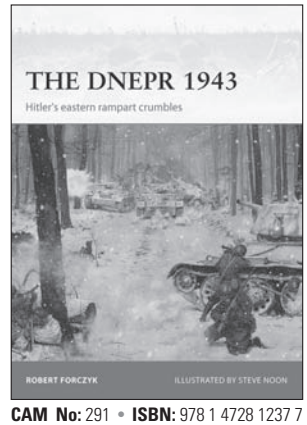

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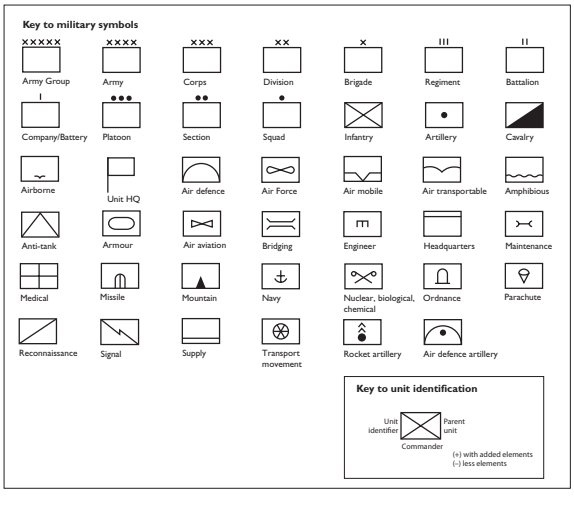

ARTIST'S NOTE

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LIST OF ACRONYMS AND ABBREVIATIONS

AOK	Armeeoberkommando (Army Command)
AT	anti-tank
BAD	Bomber Aviation Division
BAK	Bomber Aviation Corps
DR	2.SS-Panzergrenadier-Division Das Reich
GA	Guards Army
GBAD	Guards Bomber Aviation Division
GD	Guards Division
GIAD	Guards Fighter Aviation Division
GRD	Guards Rifle Division
GShAD	Guards Ground Attack Aviation Division
GTA	Guards Tank Army
HE	high-explosive
IAD	Isrebitelnyi Aviatsionnyi Division (Fighter Aviation Division)
IAK	Isrebitelnyi Aviatsionnyi Korpus (Fighter Aviation Corps)
JG	Jagdgeschwader
lFH	leichte Feld Haubitze
LSSAH	1.SS-Panzer-Division Leibstandarte SS Adolf Hitler
NBAD	Night Bomber Aviation Division
NKVD	Narodnyy Komissariat Vnutrennikh Del (People's Commissariat for Internal Affairs)
OKH	Oberkommando des Heeres
POZ	podvishnyi otriad zagrazhdenii (mobile obstacle detachments)
PzKpfw	Panzerkampfwagen
RSO	Raupenschlepper Ost (tractor)
RVGK	Stavka Reserve
SAK	Composite Air Corps
sFH	schwere Feld Haubitze
ShAK	Assault Aviation Corps
ShAD	Ground Attack Aviation Division
sIG	schwere Infanteriegeschütz
SPW	Schützenpanzerwagen
StuG	Sturmgeschütz
StuH	Sturmhaubitze
StuK	Sturmkanone
SU	samokhodnaya ustanovka; self-propelled
T	3.SS-Panzergrenadier-Division Totenkopf
TA	Tank Army
VA	Vozdushnaya Armiya (Air Army)
VVS	Voyenno-Vozdushnye Sily (Military Air Forces)

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ORIGINS OF THE CAMPAIGN

Adolf Hitler's intent to destroy the Red Army with Operation *Barbarossa* in 1941 failed and thereby committed Germany to a protracted war of attrition with the Soviet Union. Germany's economy was ill-prepared for an extended conflict, and the entry of the United States into the war necessitated that Hitler achieve a decisive victory over the Soviet Union in 1942 before the military balance swung inexorably against the Third Reich. Hitler decided to gamble and stripped the northern and central sectors of the Eastern Front of resources in order to build up Heeresgruppe Süd for a decisive push to the Volga River and into the Caucasus, designated as *Fall Blau* (Case Blue). Seventy per cent of Germany's available Panzers were committed to *Blau*, which began on 28 June 1942. Initially, the grand offensive proceeded apace, with bold advances to Voronezh, Stalingrad and into the Caucasus. However, Soviet resistance stiffened and brought the German spearheads to a halt short of their objectives. By October 1942, it was obvious that Hitler's gamble with *Blau* had failed. However, failure turned to catastrophe when the Red Army unleashed a powerful counter-offensive known as Operation *Uranus* on 19 November, which quickly encircled 6.Armee and part of 4.Panzerarmee at Stalingrad. Generalfeldmarschall Erich von Manstein was hastily sent to take command of Heeresgruppe Don, an improvised formation created to fill the gaping hole in the collapsing German southern front. Von Manstein was able to mount a desperate relief attempt with the remainder of Generaloberst Hermann Hoth's 4.Panzerarmee to try and rescue the trapped forces at Stalingrad, but this effort was halted 48km short of a link-up. Thereafter, General-polkovnik Konstantin K. Rokossovsky's Don Front slowly crushed the trapped 6.Armee, forcing it to surrender by the end of January 1943. The defeat at Stalingrad was a catastrophe for the German Army (Heer), costing it 6 of its 25 motorized divisions and 12 of its *Panzer-Abteilungen*.

Troops from the LSSAH Division entering Kharkov in March 1943. Von Manstein's operational-level victory with his 'Backhand Blow' counter-offensive temporarily stabilized the Eastern Front and set the stage for the battle of Kursk. (Author's collection)

While 6.Armee was in its death throes at Stalingrad, the Red Army launched a series of powerful follow-on operations that demolished the Italian Eighth Army (Operation *Little Saturn*) in December, then the Hungarian Second Army in January, then routed the German 2.Armee. By early February 1943, von Manstein's entire front was in retreat and

Soviet units were advancing rapidly towards Rostov, Izyum, Kursk and Kharkov. After routing the Italians and Hungarians, General-polkovnik Filipp I. Golikov's Voronezh Front mounted Operation *Star*, pushing westwards towards Kharkov and Kursk against a scratch force organized by Heeresgruppe B known as Armee-Abteilung Lanz. Further south, General Nikolai F. Vatutin's South-West Front began Operation *Gallop*, advancing into the Donbass and towards the Dnepr. Von Manstein's forces were weak and in disarray; the Soviet Stavka fully expected him to withdraw behind the Dnepr to avoid further encirclements. However, the opportune arrival of strong armoured reinforcements from the west – undetected by Soviet intelligence – gave von Manstein the opportunity for a surprise counterstroke. In late January 1943, the first elements of General der Waffen-SS Paul Hausser's SS-Panzerkorps (re-designated as II SS-Panzerkorps in June 1943) began arriving in Kharkov to reinforce Hoth's threadbare 4.Panzerarmee.

With the arrival of warm weather in spring 1943, German troops remove the whitewash camouflage from their SPW half-track. The troops from Heeresgruppe Süd enjoyed the opportunity to rest and repair equipment, but the time before *Zitadelle* was not particularly well spent in terms of training. (Author's collection)

It would take nearly two weeks for all of Hausser's SS-Panzerkorps to arrive by train, but Hoth quickly used Leibstandarte and Das Reich, as well as Panzergrenadier Division Groβdeutschland to establish a defence around Kharkov. Golikov converged upon Kharkov in early February with three armies, including the 3rd Tank Army. Meanwhile, Vatutin's forces crossed the Northern Donets near Izyum and pushed into the Donbass with five tank corps. Von Manstein manoeuvred 1.Panzerarmee to try to block Vatutin's advance towards the Dnepr, while feeding more troops to 4.Panzerarmee to hold Kharkov. However, Golikov was gradually able to turn Hoth's weak left flank, which threatened to encircle the SS-Panzerkorps inside Kharkov. Despite direct orders from Hitler and von Manstein to hold the city at all costs, Hausser opted to abandon Kharkov on 16 February in order to save his command. Amazingly, there were no consequences for this deliberate disobedience. However, abandoning Kharkov allowed von Manstein to concentrate his forces and begin his own counter-offensive against Vatutin on 20 February. By this point, most of Vatutin's armour had outrun its supply lines and only brigade-size units were still pushing forwards to the Dnepr. Von Manstein's counter-offensive, employing the SS-Panzerkorps and XLVIII Panzerkorps under Hoth and two *Panzerkorps* from 1.Panzerarmee, converged upon Vatutin's stranded armour and destroyed them piecemeal. Within four days, Vatutin's forces were retreating back across the Northern Donets and Operation *Gallop* had been defeated.

When Kharkov was recaptured in March 1943, 2.SS-Panzergrenadier-Division Das Reich came into possession of 25 intact T-34 tanks, which were pressed into service in II./SS-Panzer-Regiment 2. These tanks were given German markings and used during *Zitadelle*. Even the Waffen-SS was forced to use captured enemy equipment, since German industry was unable to fully equip units with German-built vehicles. (Nik Cornish at www.Stavka.org.uk)

Once Vatutin was no longer a threat, von Manstein turned northwards to deal with Golikov's Voronezh Front. General der Panzertruppe Werner Kempf took over Lanz's forces and gained valuable time for von Manstein

Despite the Adolf Hitler Panzer Programme announced in January 1943, which intended to increase tank production five-fold, Germany was still being out-produced by Soviet industry, which had mobilized for total war from the start. In June 1943, German industry built 253 PzKpfw IVs, 160 Panthers and 60 Tigers, for a total of just 473 main battle tanks. In contrast, during the same month the Soviets built 1,085 T-34s and they were capable of building up to 1,400 per month. Germany's anaemic tank production was one of the factors that shaped the Third Reich's inability to wage a protracted war of attrition on the Eastern Front and made *Zitadelle* a poor risk. (Nik Cornish at www.Stavka.org.uk)

by delaying Golikov's advance west from Kharkov towards the main German supply base at Poltava. After learning of Vatutin's defeat, Golikov pivoted the understrength 3rd Tank Army southwards and engaged the SS-Panzerkorps on 3 March; the result was a Soviet tactical defeat which left Kharkov vulnerable. Von Manstein immediately ordered Hoth to press northwards to seize the city before the spring thaw immobilized his armour, but he preferred to prize out the defenders with an envelopment. Instead, Hausser bull-headedly charged into the outskirts of Kharkov on 11 March, committing the SS-Panzerkorps to four days of intense urban combat. Hausser's SS-Panzerkorps eventually prevailed, but it lost more than half its tanks and suffered over 11,000 casualties.

With Golikov's forces in disarray, von Manstein wanted to continue the advance and Kampfgruppe Peiper from 1.SS-Panzer-Division Leibstandarte SS Adolf Hitler (LSSAH) captured Belgorod on 17 March. However, Stavka rushed armoured reinforcements to rebuild Golikov's shattered Voronezh Front and the muddy conditions of the spring thaw reduced mechanized movement to a crawl. Von Manstein was forced to suspend his counter-offensive after the capture of Belgorod, but he intended to renew the offensive as soon as the weather improved and his forces were replenished. The end of the German counter-offensive left the Soviets in possession of the Kursk salient, which protruded into the boundary between Heeresgruppe Mitte and Heeresgruppe Süd. Hitler agreed with von Manstein on the need to maintain the initiative by eliminating the Kursk salient but felt that a single thrust north by Heeresgruppe Süd with a few corps would be insufficient. Instead, he believed that Heeresgruppe Mitte should also join the operation, so that a powerful double pincer attack could cut off the Kursk salient. Yet it would take time to prepare Heeresgruppe Mitte for a large-scale offensive and von Manstein's forces required considerable rebuilding, so the offensive could not occur before early May. Consequently, by late March 1943 the operational tempo dropped off sharply as both sides temporarily shifted to the defence and prepared for the next round.

Despite von Manstein's impressive operational-level triumph at Kharkov, the situation facing the Wehrmacht on the Eastern Front in 1943 was bleak. Soviet tank production was out-producing the Germans at a rate of 3:1, ensuring the Red Army a large numerical superiority in tanks. The Red Army also enjoyed a considerable superiority in infantry and artillery, while Anglo-American Lend Lease was improving Soviet logistical capabilities. Furthermore, the Red Army was no longer the clumsy, ill-led opponent of 1941 but had evolved into a veteran force capable of mounting determined defences or audacious attacks. For the Germans, the days of easy victories on the Eastern Front were over. For the Soviets, victory was now a very real possibility but they had to proceed carefully in order to avoid mistakes that could prolong the war or bleed the Soviet Union dry. After the victory at Stalingrad, Stalin was finally willing to give his military professionals adequate time to plan proper campaigns that had reasonable chances of success. By mid-1943, the Red Army was prepared to fight a professional war, armed with all the tools that Soviet industry (and the Western Allies) could provide.

CHRONOLOGY

1943

29 January Vatutin's South-West Front begins Operation *Gallop* (*Skachok*) to seize the Donbass region.

2 February Golikov's Voronezh Front begins Operation *Star* (*Zvesda*), with Kharkov and Kursk as primary objectives.

8 February Kursk is liberated.

16 February Soviet forces liberate Kharkov.

19 February Manstein's 'Backhand Blow' counter-offensive begins.

13 March Oberkommando des Heeres (OKH) Operations Order No. 5 is issued, outlining plans for a spring offensive in Russia.

14 March Kharkov is recaptured by Hausser's SS-Panzerkorps.

18 March German forces recapture Belgorod.

11 April The OKH presents the first draft of *Zitadelle* and issues a warning order.

12 April Stalin authorizes a shift to the strategic defensive in the Kursk salient.

15 April OKH Operations Order No. 6, for Operation *Zitadelle*, is issued.

3 May Munich planning conference with all principals involved – Hitler remains undecided.

6 May Hitler delays *Zitadelle* until 12 June.

12 May Surrender of Axis forces in Tunisia.

22 May Luftwaffe attacks railyard with over 100 aircraft.

2 June Major Luftwaffe raid on Kursk rail station.

8 June Soviet aerial counter-offensive against Luftwaffe air bases.

21 June Hitler sets 3 July as start date for *Zitadelle*.

1 July Hitler pushes the start date back to 5 July.

4 July XLVIII Panzerkorps attacks against 6th Guards Army's combat outposts.

5 July Operation *Zitadelle* begins.

6 July XLVIII Panzerkorps reaches the Soviet second line of defence on the Pena River. II SS-Panzerkorps makes good progress, advancing 20km. 10th Tank Corps' local counterattack against LSSAH fails.

7 July XLVIII Panzerkorps attacks 3rd Mechanized Corps near Dubrova. Stavka orders 5th Guards Tank Army to begin moving towards Voronezh Front.

8 July Vatutin's counterattack with four tank corps against II SS-Panzerkorps fails. Stavka orders 5th Guards Army to join Voronezh Front.

10 July Totenkopf establishes a bridgehead across the Psel River. 9.Armee suspends its offensive against the north side of the Kursk salient. Anglo-American forces land in Sicily.

11 July LSSAH advances to the outskirts of Prokhorovka. Vatutin orders Rotmistrov's 5th Guards Tank Army and Katukov's 1st Tank Army to counterattack II SS-Panzerkorps near Prokhorovka.

12 July The battle of Prokhorovka; 5th Guards Tank Army's counterattack is a costly failure. Totenkopf advances north of the Psel River – the deepest advance by 4.Panzerarmee. A bold attack by III Panzerkorps captures an intact bridge over the Northern Donets at Rzhavets.

13 July Hitler orders *Zitadelle* suspended, but allows von Manstein to continue limited attacks.

15 July II SS-Panzerkorps and III Panzerkorps fail to crush the escaping Soviet 48th Rifle Corps.

OPPOSING COMMANDERS

GERMAN

Generalfeldmarschall Erich von Manstein, commander of Heeresgruppe Süd. Despite his reputation as a skilled practitioner of manoeuvre warfare, von Manstein settled for a frontal assault against tough enemy defences throughout *Zitadelle* and failed to appreciate that Stavka had large enough reserves to prevail in a battle of attrition. After *Zitadelle*, von Manstein was permanently forced onto the defensive and his inability to stop the Soviet advance in the Ukraine led to his relief in early 1944. (Author's collection)

Generalfeldmarschall Erich von Manstein (1887–1973) was commander of Heeresgruppe Süd since February 1943, and prior to that Heeresgruppe Don during the Stalingrad crisis. Von Manstein had a reputation as one of the best military planners in the Heer, which he demonstrated by developing the plan that led to the decisive victory over France in 1940. He also displayed great skill as an operational commander by leading 11.Armee in the conquest of the Crimea in 1941–42 and then the famous 'Backhand Blow' counter-offensive that retook Kharkov in March 1943. Von Manstein was one of the primary advocates for a major offensive against the Kursk salient and he believed that he could pull off another decisive victory. However, von Manstein was prone to underestimate the Red Army and he did not supervise the preparations for *Zitadelle* as carefully as his earlier operations. In particular, von Manstein failed to anticipate the new-style Soviet defensive tactics employed at Kursk, which would jeopardize the standard German manoeuvre tactics.

Generaloberst Hermann Hoth (1885–1971) had been commander of 4.Panzerarmee since May 1942. Hoth was the most experienced senior-level Panzer leader in the Heer, having successfully led a motorized corps in Poland and France, then Panzergruppe 3 during *Barbarossa* and 4.Panzerarmee during the Stalingrad campaign. However, Hoth's attempt to relieve the trapped 6.Armee at Stalingrad ended in failure and the remnants of his defeated army were forced to retreat over 600km into eastern Ukraine. By summer 1943, Hoth was approaching burnout as a commander, and although he possessed skill, he had diminished levels of energy for the task at hand. He was also increasingly pessimistic about *Zitadelle*, since he believed that repeated delays allowed the Soviets to establish too formidable a defence for his divisions to overcome.

General der Panzertruppe Werner Kempf (1886–1964) became commander of Armee-Abteilung Kempf in February 1943. Kempf served as a staff officer with German naval infantry in Flanders for the duration of World War I. Between 1939 and 1941, he commanded a

light division in the Polish campaign, then 6.Panzer-Division in France, then XLVIII Armeekorps (mot.) during Operation *Barbarossa*. In 1942, Kempf's command was upgraded to XLVIII Panzerkorps, which he led all the way to Stalingrad. However, Kempf was sent into the Führer Reserve for the next five months and it seems as though his relationship with Hitler was in decline. Kempf was a competent professional, but his declining enthusiasm for command was becoming evident by the time of *Zitadelle*.

General der Waffen-SS Paul Hausser (1880–1972) had commanded II SS-Panzerkorps since September 1942. Hausser was a classic Prussian military officer, having been commissioned as an infantry officer in 1899 then trained in the Großer Generalstab in 1912. He spent World War I as a staff officer on the Western and Romanian fronts. After the war, Hausser remained in the Reichswehr until his retirement in 1932. Two years later, he was brought into the nascent SS to help inculcate Prussian values into the new organization. At the start of World War II, Hausser was given command of the only Waffen-SS combat division, which was initially known as the SS-VT then later as the SS-Division Reich. He saw combat in the French campaign and then *Barbarossa*, but was badly wounded by Soviet artillery fire at the battle of Borodino in October 1941. After months of recovery, Hausser returned to service in mid-1942 and was put in charge of forming and training the first large Waffen-SS combat formation. Arriving on the Eastern Front in February 1943, II SS-Panzerkorps was unable to prevent the Soviets from encircling Kharkov and Hausser disobeyed direct orders from Hitler and von Manstein to hold at all costs. Instead, Hausser evacuated his troops but then spearheaded the counter-offensive which retook Kharkov in March 1943. Hausser was a professional soldier, and well admired by his troops, but he was 62 years old at the time of *Zitadelle* and lacked extensive experience in directing large-scale armoured operations.

General der Panzertruppen Otto von Knobelsdorff (1886–1966) received command of XLVIII Panzerkorps in February 1943. Von Knobelsdorff entered

LEFT
Generaloberst Hermann Hoth, commander of 4.Panzerarmee, directed the German main effort on the southern sector during *Zitadelle*. Hoth believed that the opportunity for a major victory at Kursk had been lost by numerous delays and his performance during the battle seems to have been undermined by growing pessimism. Hoth would be relieved of command by Hitler four months after *Zitadelle* due to the loss of Kiev in the Soviet Dnepr offensive. (Bundesarchiv, Bild 101I-218-0530-10, Fotograf: Geller)

RIGHT
General der Panzertruppe Werner Kempf, commander of Armee-Abteilung Kempf during Operation *Zitadelle*. A month after *Zitadelle* ended, von Manstein relieved Kempf of command when he questioned his orders to hold Kharkov at all costs against the Soviet counter-offensive. Kempf was not particularly well regarded by Hitler and spent the rest of the war in backwater assignments. (Bundesarchiv, Bild 101I-218-0515-11, Fotograf: Klintzsch)

General der Waffen-SS Paul Hausser, commander of II SS-Panzerkorps at Kursk. Hausser had been badly wounded by Soviet artillery fire during Operation *Typhoon* in 1941 and lost sight in his right eye. Although trained in the Grosser Generalstab, Hausser displayed an independent streak as a commander and ignored orders from von Manstein and even Hitler when he felt it put his troops at risk. After Kursk, he was transferred to the Western Front, where he fought in 1944 and 1945. (Bundesarchiv, Bild 101III-Hoffmann-013-17, Fotograf: Hoffmann)

the Imperial Army as a junior infantry officer in 1905 and was wounded twice during World War I. Although he received General Staff training, his post-war service in the Reichswehr was undistinguished. Von Knobelsdorff commanded an infantry division in Belgium in 1940 and then 19.Panzer-Division in *Barbarossa* in 1941. He spent most of 1942 defending the Ramushevo Corridor near Demyansk against repeated Soviet offensives. By mid-1943, von Knobelsdorff knew how to command a corps in combat but his health was in decline.

General der Panzertruppe Hermann Breith (1892–1964) was appointed commander of III Panzerkorps in January 1943. Breith joined the Imperial Army in 1910 and saw extensive combat service as a junior infantry officer, first in France between 1914 and 1916, then on the Eastern Front, then in the West again from 1917 to 1918. He commanded a machine-gun company on the Somme and at Verdun in 1916. After the war, Breith was retained in the Reichswehr and transferred to the new *Panzertruppen* in 1935. He led Panzer-Regiment 36 in Poland in 1939, then Panzer-Brigade 5 in France in 1940. Breith was assigned to the Oberkommando des Heeres (OKH) at the start of *Barbarossa*, but took command of 3.Panzer-Division during the final stages of the advance on Moscow. In 1942, he led 3.Panzer-Division in the second battle of Kharkov and the advance into the Caucasus. Breith was one of the most effective Panzer commanders in Heeresgruppe Süd and – amazingly – he remained in command of III Panzerkorps to the end of the war.

SOVIET

The **Voronezh Front Military Council**, which made all important operational decisions, included (General-leytenant) Nikita S. Khrushchev and (General-leytenant) Leonid R. Korniyets. Khrushchev exerted a dominant voice in the council and even Vatutin could not afford to act counter to his wishes.

General Nikolai F. Vatutin (1901–44) became commander of the Voronezh Front in March 1943. Unlike his opponents, Vatutin came from a humble peasant background and worked his way upwards in the Red Army by his skill as an operational planner and political patronage. Prior to World War II, he served primarily in staff roles and graduated from the General Staff (*General'nogo shtaba*) Academy in 1937. Zhukov noticed Vatutin's innate talent and hand-picked him to serve as his chief of staff in the Kiev Military District between 1938 and 1940. At the start of World War II, Vatutin was sent to the North-West Front where he organized the counterattack at Soltsy in July 1941 that mauled one of von Manstein's divisions. During the 1942 Stalingrad Campaign, Vatutin served as a Stavka representative at Stalingrad and then commanded the South-West Front during the Soviet 1942/43 Winter Counter-offensive. With the German frontline in chaos, Vatutin erroneously assumed that von Manstein intended to retreat to the Dnepr and allowed his forces to become over-extended. Von Manstein's 'Backhand Blow' counter-offensive in 1943 caught Vatutin off-balance and his forces were defeated in detail. However, Vatutin learned from his defeat and he put great effort into preparing to defeat von Manstein's offensive towards Kursk.

General-leytenant Pavel A. Rotmistrov (1901–82) was appointed commander of the 5th Guards Tank Army in February 1943. The teenage Rotmistrov was conscripted into the Red Army in 1919 and distinguished himself at the suppression of the Kronstadt Rebellion in 1921. Rotmistrov, who wore glasses and looked like a professor, followed an academic path in the Interwar Red Army and was made an instructor at the Military Academy of Mechanization and Motorization (VAMM) in 1937. During the Stalinist purges, he came under suspicion of the NKVD and was expelled from the Communist Party, but was later reinstated. After writing his thesis on armoured warfare, Rotmistrov was given a chance to put his theories into practice by commanding a tank battalion during the Russo-Finnish War in March 1940; he helped spearhead the breakthrough of the Mannerheim Line. In September 1941, he took command of the newly organized 8th Tank Brigade in the North-West Front and moved 250km in a single day in a vain attempt to save the city of Kalinin from the German advance; when the city fell anyway, Konev accused Rotmistrov of cowardice and nearly relieved him of command. Rotmistrov distinguished himself during the Moscow counter-offensive and in April 1942 he was given command of the 7th Tank Corps. Assigned to the 5th Tank Army, Rotmistrov's corps was part of the first major offensive operation conducted by a Soviet tank army – a counterattack against Hoth's 4.Panzerarmee near Voronezh on 6 July 1942. After a six-day battle, the Soviet counter-offensive collapsed and Rotmistrov's corps was decimated. Quickly rebuilt, Rotmistrov's corps joined 1st Tank Army and participated in the Kotluban offensive on 18 September, which was another massive failure. However, Rotmistrov's corps was again re-equipped and successfully participated in the encirclement of 6.Armee in November, then the pursuit of Hoth's forces after the failure of Operation *Wintergewitter*. In January 1943, Rotmistrov led the 3rd Guards Tank Corps in the advance towards Rostov. Rotmistrov was an intelligent officer but tended to follow orders blindly, no matter what the consequences. He lacked a certain ruthlessness and may have been miscast as a field commander – he was probably better suited to the role of chief of staff of a tank army.

General Nikolai F. Vatutin, commander of the Voronezh Front (centre) and Nikita S. Khrushchev on his left. Vatutin was a skilled commander and had demonstrated his ability to conduct aggressive operations, but he had also been badly defeated by von Manstein's 'Backhand Blow' counter-offensive in March 1943. At Kursk, Vatutin made some good decisions but he also committed his reserves too quickly and tried to fight von Manstein head on, rather than going after his vulnerable flanks. After Kursk, Vatutin would inflict a string of defeats upon von Manstein leading to the liberation of Kiev, but he would not survive to see the final victory. Vatutin was ambushed by Ukrainian partisans and mortally wounded in February 1944. (Author's collection)

General-leytenant Mikhail E. Katukov (1900–76) became commander of the 1st Tank Army in January 1943. Katukov came from a large peasant family near Moscow. He joined the Red Army in 1919 and fought in the Russo-Polish War. Katukov served in the infantry for over a decade before transferring to the new mechanized forces in 1932, where he served in a variety of staff roles. In 1938, Katukov took command of a light tank brigade and then the 20th Tank Division in 1940. During the opening days of Operation *Barbarossa*, Katukov's poorly equipped tank division was demolished in the fighting around Dubno and he was sent to Stalingrad to organize a new unit. Katukov took command of the 4th Tank Brigade, equipped with T-34 tanks, and led it in the successful counterattack against Guderian's spearhead at Mtsensk in October 1941. On 29

LEFT
General-leytenant Pavel A. Rotmistrov, commander of the 5th Guards Tank Army. Rotmistrov demonstrated his ability to handle a tank brigade in 1941 but suffered a string of defeats as a corps and army commander in 1942–43 that can be attributed in part to the Red Army's steep learning curve in trying to outfight more-experienced German Panzer units. After the disaster at Prokhorovka, Stalin wanted to put Rotmistrov on trial but Vasilevsky managed to talk him out of this. Nevertheless, Stalin ordered an investigation, which found Rotmistrov's hasty planning for the battle – much of which was forced upon him – as a model of how not to conduct an attack. (Author's collection)

RIGHT
General-leytenant Mikhail E. Katukov, commander of the 1st Tank Army at Kursk. Katukov was one of the best senior Soviet tank officers and he led the 1st Tank Army all the way to Berlin in 1945. After the war, he commanded Soviet forces in occupied Germany. Katukov used his tanks carefully against the XLVIII Panzerkorps, preventing it from achieving any real breakthrough, and caught von Knobelsdorff by surprise with his attack into the Tolstoye Woods. (Author's collection)

June 1942, Katukov led a counterattack against Hoth's spearhead near Voronezh, but this time his unit was defeated. He then commanded the 3rd Mechanized Corps and nearly achieved a breakthrough during Zhukov's unsuccessful offensive against the Rzhev Salient in November 1942. Katukov was a talented armour officer who continued to learn and improve throughout the war, but his efforts were often undermined by ill-considered command guidance from above.

General-leytenant Ivan M. Chistiakov (1900–79) was appointed commander of the 6th Guards Army (previously the 21st Army) in November 1942. Chistiakov joined the Red Army in 1918 and was wounded during the Civil War. After 15 years of service in the Caucasus, he was transferred to the Far East in 1936 and rose to command a rifle corps by early 1941. When the German invasion began, Chistiakov was recalled to Moscow and put through an accelerated General Staff course, then assigned to command a brigade during the Moscow counter-offensive. He spent much of 1942 commanding the 2nd Guards Rifle Corps on the Kalinin Front but then moved to Vatutin's South-West Front in November to command the 21st Army in Operation *Uranus*. Chistiakov's 21st Army played a major role in the encirclement of the German 6.Armee at Stalingrad and in the subsequent advance towards Kharkov. Chistiakov was an experienced infantry officer but he had not previously witnessed the fury of a full-scale, German combined-arms offensive and was surprised by the intensity of the enemy onslaught during *Zitadelle*.

General-leytenant Mikhail S. Shumilov (1896–1975) had commanded the 7th Guards Army (previously 64th Army) since August 1942. Shumilov was of peasant origin but served as a warrant officer in the Russian Imperial Army in 1916 and 1917. He joined the Red Army in 1918 and commanded an infantry brigade in the reconquest of the Crimea in 1919. Shumilov served as an advisor in Spain in 1937, then commanded the 11th Rifle Corps in the invasion of Poland in 1939 and the Russo-Finnish War. His rifle corps was destroyed in Estonia during Operation *Barbarossa* and he participated in the early stages of the defence of Leningrad. In January 1942, Shumilov was shifted to the South-West Front and he served as deputy commander of the 21st Army, then commander of the 64th Army in the battle of Stalingrad. Shumilov was the Soviet officer who took the surrender of Generalfeldmarschall Friedrich Paulus in January 1943.

OPPOSING FORCES

GERMAN

Von Manstein's Heeresgruppe Süd had suffered heavy losses during the winter of 1942/43 and it was further strained by the absence of Axis allied units to hold quiet sectors of the front. As spring blossomed, von Manstein had to make choices about where he would be strong and where he would be weak. In accordance with preparations for *Zitadelle*, the bulk of replacements went to Hoth's 4.Panzerarmee and Armee-Abteilung Kempf. Von Manstein's other two armies – 1.Panzerarmee and 6.Armee – had to make do with less. At the start of July, von Manstein had assembled 350,000 troops in the Kharkov–Belgorod sector for the offensive, but he was taking the calculated risk that he could break through Vatutin's front before the Soviets attacked his own vulnerable sectors. The lack of adequate reserves limited von Manstein's ability to exploit any breakthrough on the Kursk axis. Without significant reserves, it was very risky for von Manstein to push into the depth of the enemy's positions or to suffer heavy losses, so he was forced to be somewhat cautious. Unless *Zitadelle* achieved a quick and relatively cheap success, Heeresgruppe Süd could find itself over-extended and vulnerable.

Armour

In the first three months of 1943, the Germans lost 2,152 tanks; by the time that von Manstein's counter-offensive culminated, the Germans had fewer than 800 operational tanks on the entire Eastern Front. Generaloberst Heinz Guderian, as Inspekteur der Panzertruppen, played a major role in restoring the combat capability of *Panzer-Divisionen* on the Eastern Front between April and June 1943, although this task was far from complete by the start of the offensive. Even the 2.SS-Panzergrenadier-Division Das Reich was forced to use 25 captured T-34 tanks in its SS-Panzer-Regiment 2 due to insufficient German-built medium tanks. In addition to pushing for increased tank production, Guderian was able to expedite spare parts to the Panzer-Werkstatt (repair) units, which enabled hundreds of damaged tanks to be made operational again during the spring lull. Thanks to Guderian's efforts, von Manstein would have 1,246 tanks, 266 assault guns, 113 tank destroyers and 887 Schützenpanzerwagen (SPW) armoured personnel carriers for *Zitadelle*.

Although the Tiger tank has always garnered much attention, these heavy tanks represented just 7 per cent of von Manstein's armour for *Zitadelle* and would only be employed in platoon- and company-size detachments. There is no

doubt that the Tiger's 8.8cm KwK 36 L/56 gun and thick armour gave it a huge tactical advantage over the Soviet T-34/76 medium tank; the Tiger could reliably destroy T-34s at a range of 1,500m or more with relative impunity. However, the 54-ton Tiger was unable to cross most German tactical bridges, which meant that getting across even minor water obstacles posed serious problems.

One-third of von Manstein's armour comprised the now inadequate Panzerkampfwagen (PzKpfw) III medium tank, which was clearly out-classed by the T-34. The real German main battle tank at Kursk was the PzKpfw IV Ausf. H medium tank, equipped with the 7.5cm KwK 40 L/48 gun; this tank was superior to the T-34 in firepower, but out-classed in mobility. With a well-trained crew, the PzKpfw IV was still a capable tank killer, but efforts to increase its firepower and armoured protection reduced its mobility. German maintenance units began installing *Schürzen* (side skirts) on PzKpfw IIIs and PzKpfw IVs in mid-March to increase their side protection. In addition to tanks, Hoth and Kempf had seven assault-gun battalions with a total of 266 Sturmgeschütz (StuG) III and Sturmhaubitze (StuH) 42 vehicles. The long 7.5cm Sturmkanone (StuK) 40 L/48 gun on the StuG III Ausf. G was an excellent anti-tank weapon, while the 10.5cm howitzer on the StuH 42 was well-suited to reducing bunkers and targets in villages.

A column of PzKpfw III medium tanks moving to the front just before *Zitadelle* begins. Even though the PzKpfw III was outclassed by the T-34 and production had stopped in June 1943, it still comprised one-third of von Manstein's armour during *Zitadelle*. Most German *Panzer-Divisionen* still had two to three companies of PzKpfw III tanks at Kursk and a total of 56 were destroyed during the battle. After *Zitadelle* was cancelled, almost half of von Manstein's remaining armour consisted of PzKpfw III variants, which meant that most of his best tanks were rendered non-operational. (Bundesarchiv, Bild 101I-219-0562A-06, Fotograf: Scheffler)

Although Hoth and Kempf had adequate armour available, the basic tactical plan for *Zitadelle* required German tanks to seek out and destroy the numerically superior enemy armour, which would be hiding behind minefields and anti-tank strongpoints. The *Panzertruppen* really needed something extra to achieve the kind of tactical dominance that was expected of them, which meant either more tanks or better tanks. As noted in *Panther vs T-34: Ukraine 1943* (Osprey Publishing, Duel #4, 2007), the Germans had been attempting to develop a new medium tank since encountering the T-34 in 1941. Limited production of the PzKpfw V Panther tank began in January 1943, which ostensibly offered greatly superior firepower, mobility and protection. Like a rabbit out of a hat, the Panther promised to reverse Germany's battlefield misfortunes and neutralize all of the T-34's advantages. However, the Panther was rushed into production after a series of poor engineering decisions, which resulted in a deeply flawed tank. Guderian assessed the Panther as unready for combat and told Hitler, who rejected his technical conclusions. Consequently, a brigade of Panthers was hastily assembled in Germany in June 1943 and rushed higgledy-piggledy to von Manstein's command just in time for *Zitadelle*.

Much has also been made of the *Panzerkeil* (tank wedge) tactic in literature about the battle of Kursk. In theory, the *Panzerkeil* comprised a *Kampfgruppe* in arrow-shaped wedges, with Tiger and Panther tanks in the lead wedge, followed by a wedge of PzKpfw IVs, then the lighter PzKpfw IIIs to cover the flanks, then a trailing wedge with the self-propelled artillery and Panzergrenadiers. However, the reality is that the ideal *Panzerkeil* was rarely employed in *Zitadelle*

because there were too few Tigers and the Panthers were only attached to Großdeutschland. Furthermore, *Pioniere* (pioneers) had to lead to clear mines and when they did not, the Tigers were quickly immobilized. At best, the lead *Kampfgruppe* would have a platoon of Tigers out front with some *Pioniere*, followed closely by a company of PzKpfw IVs and a mixed company of Panzergrenadiers and Panzerjäger. Since even the SS divisions were saddled with large numbers of PzKpfw IIIs and could not keep more than a platoon or two of Tigers operational, the idea that the *Panzerkeil* was a remedy to Soviet anti-tank defences was just another of Hitler's heavy tank fantasies.

The two Panther battalions joined 4.Panzerarmee the night before *Zitadelle* began and got off to a very poor start. Committed into combat without proper training or leadership, the Panther units performed poorly and suffered heavy casualties. The Panther Ausf. D model was plagued with mechanical defects and about half the 200 Panthers broke down and few could be repaired. Consequently, the eagerly awaited Panther tank played only a marginal role in *Zitadelle*. (Nik Cornish at www.Stavka.org.uk)

Infantry

Unlike previous German offensives in 1941–42, infantry divisions would only play a subordinate role as flank guards and would not be used to create breakthroughs for the Panzer units. During *Zitadelle*, Hoth would employ three infantry divisions to cover either flank of the XLVIII Panzerkorps, but II SS-Panzerkorps would attack without direct support of any Heer infantry divisions. Likewise, Kempf would use three infantry divisions to cover the flanks of III Panzerkorps. Four other infantry divisions from Heeresgruppe Süd were peripherally involved in *Zitadelle*, but von Manstein essentially committed only six infantry divisions to the offensive and had no reserve infantry. Although the drain of continuous manpower losses had seriously depleted many German infantry divisions on the Eastern Front by mid-1943, von Manstein was fortunate that the six infantry divisions he committed to *Zitadelle* averaged over 14,000 personnel, or 85 per cent of authorized strength. Nevertheless, the total amount of 'foot' infantry committed to the offensive was fewer than 25,000 troops – the equivalent of only three 1941 full-strength divisions.

Without adequate infantry, the Panzer spearheads would have great difficulty holding ground that was seized and would have to utilize their own scarce Panzergrenadiers for flank security. Each Panzer division had two Panzergrenadier regiments with a total of four battalions whereas the *Panzergrenadier-Divisionen* had a total of six battalions. Most of the Panzergrenadiers gained their tactical mobility from light trucks, but walked like foot infantry when in contact with the enemy. The most powerful unit in each mechanized division was the single armoured *Panzergrenadier-Bataillon* (*Gepanzert*), which had a nominal strength of 900 troops and 83 SPW half-tracks, although at the start of *Zitadelle* only the three Waffen-SS divisions, Großdeutschland and 6. and 7.Panzer-Division had enough SPWs to mount a full battalion. The *Gepanzert* was a powerful combined-arms task force that included infantry guns, anti-tank weapons, mortars and pioneers. Due to the protection afforded from shell splinters and machine-gun fire, Panzergrenadiers mounted in SPWs could remain in their vehicles and follow right behind the Panzers. Nevertheless, the limited amount of infantry

The German 15cm sFH 18 was the standard division and corps-level heavy field howitzer, with a maximum range of 9,725m with Charge 6; if Charge 8 was used, the howitzer could hurl a shell to over 14km, but this put considerable wear on the barrel and required special permission to employ. Consequently, this weapon was out-ranged by Soviet artillery pieces like the 152mm ML-20, which had a maximum range of 17km. Hoth and Kempf had a total of 165 sFH 18 howitzers. (Author's collection)

available would force the Panzer units to employ a good portion of their Panzergrenadiers to guard flanks and hold captured terrain, which would quickly sap their remaining strength for offensive purposes.

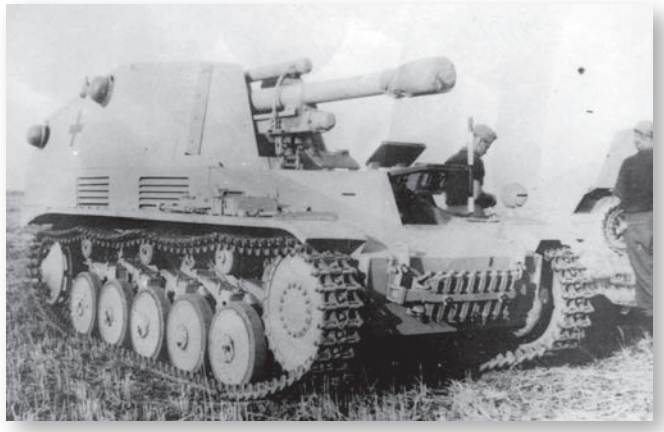
Artillery

Normally, an army that wants to conduct a deliberate breach of a fortified line tries to mass superior firepower at the decisive point to suppress enemy defences. However, by July 1943 the German artillery arm was in decline due to previous heavy losses. In addition, there was a marked shift towards short-range, high-volume rocket artillery instead of large-calibre tube artillery; Nebelwerfer were cheaper to produce and easier to move around than big howitzers. One-quarter of von Manstein's artillery consisted of 15cm, 21cm and 28/32cm Nebelwerfer multiple rocket launchers. These weapons were excellent for suppression missions due to their high volume of fire, but the short-range and obvious smoke trails put the Nebelwerfer at great risk of enemy counter-battery fire. Furthermore, von Manstein adopted a very different approach to using his artillery compared to Armeeoberkommando (AOK) 9; whereas Model centralized most of his artillery under a single army-level commander, von Manstein allowed each corps to control its own artillery.

Just prior to *Zitadelle*, Heeresgruppe Süd received several new artillery weapons: 40 Grille (a 15cm schwere Infanteriegeschütz [sIG] 33 mounted on a Czech Pz 38(t) chassis), 48 Wespe (a 10.5cm leichte Feld Haubitze [lFH] 18 mounted on a PzKpfw II chassis), 24 Hummel (a 15cm schwere Feld Haubitze [sFH] 18 mounted on a PzKpfw III/IV chassis) and 12 Panzerwerfer 42 (15cm Nebelwerfer mounted on Maultier semi-tracks). Most of these new weapons went to the Waffen-SS divisions and Großdeutschland. Meanwhile, a good portion of the artillery in the infantry divisions was still horse-drawn. However, the main problem with the 791 field artillery pieces (including 501 10.5cm lFH 18 and 165 15cm sFH 18) used by Heeresgruppe Süd was their lack of range; the standard German 10.5cm and 15cm howitzers could only strike targets 6–8km beyond the frontline. Nor did these short-range weapons have the ability to conduct effective counter-battery missions to knock out enemy artillery, which often had greater range than they did.

Heeresgruppe Süd may have received more tanks than Model's AOK 9 for *Zitadelle*, but it only received half as much artillery. Normally, the German divisional artillery was supplemented by Heeresartillerie units assigned to corps- and army-level echelons, but Heeresgruppe Süd only had a dozen such units spread across five corps. Seven of the twelve Heeresartillerie battalions were equipped with 10.5cm howitzers and two with 15cm, whose only difference was that two battalions had the new Raupenschlepper Ost (RSO) tractor for improved tactical mobility. Von Manstein's only heavy artillery was provided by two battalions of 21cm Mörser 18, with all 42 weapons given to Hoth's army; the Mörser 18 could lob a 113kg high-explosive (HE) shell out to 14km. Von Manstein should have requested long-range 17cm K18 guns for counterbattery missions – like Model did – but he did not. German artillery at Kursk was simply not up to the task of destroying

extensive enemy field works and, aside from the small number of self-propelled guns, was out-classed by most of the Soviet artillery it faced.



During spring 1943, Heeresgruppe Süd received 54 of the new SdKfz 124 Wespe self-propelled howitzers, which was a 10.5cm lFH 18 howitzer mounted on a PzKpfw II chassis. Each of the elite divisions in Hoth's 4.Panzerarmee received two batteries of Wespe (12 vehicles), plus a battery of the SdKfz 165 Hummel, which mounted a 15cm howitzer. The creation of self-propelled artillery units greatly added to the firepower of a few chosen divisions, but the Wehrmacht was unwilling to make a major investment in these kinds of weapons, since it impacted on the production of anti-tank vehicles. (Nik Cornish at www.Stavka.org.uk)

Pioniere

Although the German Army had encountered mines on the Eastern Front in 1941 and 1942, they had not been deployed in sufficient density to seriously impair the mobility of German Panzer units. The situation at Kursk was different because the Red Army had the time to create larger, denser minefields that were covered by direct fire. Now for the first time, the Panzers could not simply bypass enemy mines. However, unlike the British Army, which made a serious effort to develop flail tanks and other rapid mineclearing technology in North Africa, the German Army expended little effort in improving its mineclearing capabilities. The only advanced mineclearing technology possessed by the Wehrmacht was the radio-controlled Borgward IV (BIV) demolition vehicle and the smaller Goliath, but unlike Model's AOK 9, von Manstein did not request any specialized *Pionier* assets for mineclearing.

Each of the 15 assaulting divisions in Heeresgruppe Süd had its own *Pionier-Bataillon* with about 400 sappers and there were also nine corps-level battalions. Altogether, Heeresgruppe Süd committed over 7,000 engineer troops to *Zitadelle*. German *Pioniere* were equipped with electronic mine detectors, but these did not function well in this region due to the Kursk magnetic anomaly. Consequently, virtually all mineclearing in front of Hoth's and Kempf's Panzers would have to be done by hand; it was estimated prior to the battle that it would take a *Pionier-Bataillon* two hours to create a single 100m-deep breach through a minefield. Thus, Heeresgruppe Süd's limited mineclearing capabilities would greatly reduce the ability of the Panzers to conduct mobile warfare, by forcing them to advance at a snail's pace.

A Waffen-SS soldier removing a wooden PMD-6 anti-personnel mine. All German mineclearing operations in the southern sector were conducted by hand. Clearing even a narrow single-vehicle lane through a dense minefield could take hours and cost many casualties. Heeresgruppe Süd was unprepared for the scale of mine warfare employed by the Voronezh Front and failed to request additional *Pioniere* assets or specialized equipment. (Nik Cornish at www.Stavka.org.uk)

Air support

Generalmajor Hans Seidemann's Fliegerkorps VIII would support von Manstein's offensive with just over 1,000 aircraft. The Luftwaffe on the Eastern Front in 1943 was optimized for just two missions: air superiority and close air support. Although outnumbered 2½:1 by Soviet fighters, the quality of the Bf-109G fighter and the veteran pilots of Jagdgeschwader 3 and Jagdgeschwader 52 more than made up the difference and gave the Jagdflieger the edge in the air superiority mission. Once air superiority over the battlefield was achieved, Seidemann intended to employ his ground-attack aircraft to pulverize Soviet defensive positions in the path of the *Schwerpunkt* (point of main effort). For close air support, the six *Gruppen* of venerable Ju-87D Stukas were supplemented by the new Fw-190A-5 ground-attack aircraft and Hs-129B tank busters, armed with a 3cm cannon. However, Fliegerkorps VIII had limited ability to conduct deep operations with its level bombers against enemy reserves or to prevent enemy ground reinforcements from reaching the battlefield; preliminary raids to disrupt the Soviet build-up had been costly failures. Furthermore, Fliegerkorps VIII really only had the resources to fully support either Hoth or Kempf, but not both simultaneously.

Combat logistics

Hitler could swoon all he liked over the Tiger and Panther tanks, but it was up to the *Panzer-Werkstatt-Kompanien* in each Panzer regiment to keep them operational and recover them on the battlefield when damaged. Heretofore, rapid and efficient recovery of damaged vehicles had acted as a force multiplier for the Germans, by enabling them to get tanks back to the front as soon as possible. Each *Werkstatt-Kompanie* usually had six SdKfz 9 (FAMO) heavy half-tracks, which were capable of towing up to 28 tons. The FAMO could easily recover PzKpfw III/IV medium tanks, but two were required to tow a 45-ton Panther and sometimes three to tow a 54-ton Tiger. Consequently, the introduction of nearly 300 heavy tanks stretched Heeresgruppe Süd's battlefield recovery capabilities beyond the breaking point. During *Zitadelle*, the Werkstatt units were only able to repair about 50–60 per cent of damaged tanks.

Two FAMO half-tracks were required to tow a disabled Tiger tank, which put a strain on battlefield recovery assets. Many of the Tiger tanks were disabled by mines in the first days of *Zitadelle* and recovering their 54-ton deadweight proved difficult in anything but hard, flat ground. While the Tiger's firepower and protection was impressive, it came at the cost of reduced tactical mobility, which would increasingly affect German operational decisions. (Bundesarchiv, Bild 101I-022-2926-11A, Fotograf: Altvater)

German StuG III assault guns refuelling from a fuel truck. German combat logistics were strained during *Zitadelle* and it proved difficult to get fuel and ammunition to front-line combat units in a timely manner, particularly when roads were under frequent air and artillery attacks. Note that the fuel is being transferred by hose and hand-pump from a 50-gallon drum, which is a slow method for tactical refuelling. (Bundesarchiv, Bild 101I-087-3671A-16, Fotograf: Pincornelly)

Even when Panthers and Tigers could be recovered, there were very few spare parts to repair them. The Panthers arrived just before *Zitadelle* with no spare parts and none arrived before the end of the offensive, so damaged Panthers could only be repaired by cannibalizing other Panthers. The Tigers had been in service for seven months, but the high cost of the Tiger meant that very few spare engines or transmissions were provided to forward support units, so in sustained combat Tigers had a typical operational readiness rate of less than 40 per cent. There was a good amount of spares for the PzKpfw III and PzKpfw IV medium tanks, although the failure to anticipate the threat of mine damage meant that the stockpile of road wheels and road wheel arm assemblies was not sufficient to keep up with demand. Thus, the failure of Heeresgruppe Süd and the OKH to plan adequately for combat logistics was another factor that significantly undermined the German chances for success in *Zitadelle*.

SOVIET

Vatutin's Voronezh Front had been reinforced to over 625,000 personnel by the start of July 1943 and was prepared to mount a deliberate defence and counterattack as needed. Unlike the Germans, the Soviet defenders enjoyed not only numerical superiority in infantry, tanks and artillery at the front, but substantial reserves. Konev was ready to feed up to 570,000 more troops into the battle as needed.

Infantry

Vatutin ensured that his front was held entirely by Guards Rifle divisions (*Gvardeyskaya Strelkovaya diviziya*), which contained significant numbers of veteran troops and officers. While the Guards infantry were hardly elite troops, they were much steadier than the poorly trained, inexperienced conscript infantry that the Panzers ran roughshod over in 1941–42. In order to further increase their steadiness, Vatutin ensured that all subordinate

Soviet sappers laying anti-tank mines and creating barbed-wire obstacles in the outpost line prior to *Zitadelle*. Although the Voronezh Front created very dense minefields, the thickest defences were in the first echelon of defence; the second and third lines of defence were much more limited. (Author's collection)

divisions gave their infantry realistic training against tanks during the lull period so that units would not panic if confronted by massed enemy armour. Surprisingly, Stavka sent new replacements to Konev's strategic reserves, but Vatutin was forced to rebuild his front-line rifle divisions mostly with his own resources, including conscripting manpower from newly liberated areas. Nevertheless, by early July, the rifle divisions in both the 6th and 7th Guards armies were at 75–90 per cent of their authorized strength and even the shortage of trained junior officers had been corrected.

Although Chistiakov and Shumilov had over 40,000 infantry in each of their armies, their forward units were still forced to defend fairly wide sectors, up to 15km per division. Consequently, each rifle division built its defence upon reinforced battalion-size strongpoints that were designed for all-around defence. When reinforced with anti-tank guns, mortars and heavy machine guns, and with troops protected by trenches and bunkers, these strongpoints would prove to be capable of holding off direct assaults for hours. Each first echelon rifle division had four of these battalion strongpoints in its main line of resistance, then two more 2km behind that and another three in its reserve positions.

Artillery

Unlike Rokossovsky, who deployed two artillery divisions and a multiple rocket launcher division to support his front-line infantry, Vatutin dispersed his artillery rather than massed it. Vatutin relied primarily upon division- and corps-level medium artillery, a large proportion of which were 76.2mm ZIS-3 guns or 122mm M30 howitzers. The small number of 152mm ML20 gun/howitzers were deployed with army-level artillery groups. Vatutin's forward-deployed artillery was dug in and enjoyed a plentiful supply of ammunition.

Vatutin intended to stop von Manstein's armour within a matrix of mutually supporting anti-tank zones (*protivotankovyje rajony*). Each anti-

tank strongpoint usually had either a platoon of four 45mm anti-tank guns or a battery of four 76.2mm ZIS-3 guns, supplemented with 14.5mm anti-tank rifles. Most of the strongpoints were well concealed and difficult to spot, so gunners were encouraged to hold their fire until enemy tanks were at close range and stopped by mines. Vatutin also held a pair of anti-tank brigades at front level, which he could commit to seal off any breaches in his front. Altogether, Vatutin deployed an average of nine anti-tank guns per kilometre of front, which greatly exceeded previous defensive norms.

Armour

Vatutin had a total of 1,537 tanks under his command in the Voronezh Front, including 946 T-34 medium tanks and 277 T-70 light tanks. Since Soviet industry was still not able to provide enough T-34 tanks to completely equip tank brigades, the Red Army was forced to continue using the T-70 in all its tank brigades – even in Guards units – at Kursk, despite the fact that this vehicle was inferior to almost all German tanks. One-seventh of Vatutin's tank strength comprised British or US-built tanks acquired through Lend Lease; these foreign tanks were relegated to infantry support roles.

By mid-1943, the T-34/76 design had seen only minor evolution in the previous two years and its 76.2mm F-34 cannon could not defeat German heavy tanks except at ranges under 500m, but it was still a formidable tank on the defence. Furthermore, the T-34's diesel engine and reliable suspension gave the tank a level of tactical and operational mobility that German tanks could not hope to achieve. Stavka was aware of the existence of the Tiger tank and knew that it outclassed the T-34 in terms of firepower and protection, but counted on mines and anti-tank zones to neutralize its superiority – which proved correct.

The Red Army was just beginning to receive a wide variety of self-propelled guns (*samokhodnaya ustanovka* – SU), which were modelled on

The Red Army was beginning to field regiments equipped with the new SU-76M self-propelled gun. This weapon was roughly equivalent to the German assault guns and provided useful mobile firepower. A total of 1,908 SU-76 guns were built in 1943. (Courtesy of the Central Museum of the Armed Forces, Moscow via Stavka)

the German assault guns. Vatutin had three of the newly formed self-propelled gun regiments with a total of 54 self-propelled guns (18 SU-76, 24 SU-122 and 12 SU-152) and Konev had about 60 more SU. The lightweight SU-76 (a 76.2mm ZIS-3 on a T-70 chassis) entered service at the end of 1942 but was plagued with transmission defects until rectified in May 1943. For heavy fire support, the SU-122 (a 122mm M30 howitzer on a T-34 chassis) and the SU-152 (a 152mm ML20 gun on a KV-1 chassis) entered service in May.

Vatutin's ace-in-the-hole was General-leytenant Mikhail E. Katukov's 1st Tank Army and the separate 2nd and 5th Guards Tank corps, which were kept further back as his front-level reserves. Vatutin intended to use this mass of nearly 1,000 tanks to launch local counterattacks to prevent any major German breakthroughs. In addition, Konev's reserves in the Steppe Front could reinforce the Voronezh Front with up to 1,500 more tanks, including Rotmistrov's 5th Guards Tank Army. Furthermore, the Red Army had made real strides in improving its ability to recover and repair damaged tanks and the repair units assigned to 1st Tank Army and 5th Guards Tank Army could repair an average of 15 tanks per day.

Mine warfare

In April 1943, the Red Army issued a new mine-warfare doctrine which emphasized laying minefields in deep belts to stop enemy armour. Whereas previous Soviet minefields had been small and easy for the enemy to bypass, the new doctrine was premised on creating mine barriers that had no gaps or opportunities to bypass. Each minefield was expected to be at least 100m deep and with up to 2,600 mines per kilometre of front. The minefields comprised a mix of TM-38 and TM-41 anti-tank mines and wooden PMD-6 anti-personnel mines. The TM-41 could not destroy a German tank but it could damage road wheels or break track blocks – either of which could temporarily immobilize a tank. Once stopped in a minefield, Soviet artillery and anti-tank weapons could repeatedly strike the stopped enemy tank.

Prior to *Zitadelle*, the 6th Guards Army laid 170,000 mines and the 7th Guards Army laid 151,000 mines, resulting in densities of 800–2,000 anti-tank and 800–2,400 anti-personnel mines per kilometre of front in the first echelon. Even though the 6th Guards Army laid more mines, the density in the 7th Guards Army sector was much higher. Two-thirds of the mines were laid in the first echelon, meaning that the second and third lines of defence were considerably thinner. Some 45–50 per cent of the mines were anti-tank mines. The Soviet minefields were not foolproof – some sectors were not as well protected as others – but nevertheless they represented formidable obstacles.

Yet even with dense minefields covered by direct fire, Red Army engineers still expected the enemy to breach the mine barriers somewhere, so Mobile Obstacle Detachments (*Podvishnyi Otriad Zagrazhdenii* – POZ) were formed to lay mines in front of advancing enemy units. Each POZ was based on a motorized engineer battalion and was provided with 2,000–5,000 mines. The Voronezh Front had five POZ, which Vatutin intended to use to stymie enemy breakthroughs until his reserves could be employed for counterattacks. During the course of *Zitadelle*, the POZ would lay 30,000 more mines. The POZ were regarded as one of the antidotes to blitzkrieg, continually seeding the Germans' path with more mines, thereby slowing any breakthrough to a crawl.

Air support

Vatutin hoped that the Voyenno-Vozdushnye Sily (Military Air Forces – VVS) could keep the Luftwaffe at bay during *Zitadelle*, since Stavka recognized that it was the synergy between Panzers and close air support that had led to so many German victories in the past. The 2nd Vozdushnaya Armiya (Air Army –VA) and 17th VA had a total of over 550 fighters, including 240 La-5s, 216 Yak-1s and 96 Yak-7Bs. Under the right circumstances, the La-5 could match the German Bf-109G, although the Soviet fighters were still slightly inferior in terms of manoeuvrability and firepower. In the early days of *Zitadelle*, Soviet fighters usually operated in squadron strength or less, which enabled the numerically inferior Bf-109Gs to defeat them in detail.

In addition, Vatutin expected the VVS to provide close air support to aid counterattacks. Altogether, the 2nd VA and 17th VA assembled an impressive force of over 400 Il-2 Sturmoviks, which could provide mobile anti-tank strikes to supplement the army's fixed defences. However, the VVS commanders had not resolved whether their priority was offensive counter-air (to shoot down German fighters) or escorting the Il-2s to protect them from enemy fighters. Lacking clear command guidance, the VVS commanders split their fighter resources between both missions, thereby reducing chances for success. The VVS also had a credible force of Pe-2 and A-20B light daylight bombers which could be used to raid Luftwaffe airfields or conduct battlefield interdiction.

ORDER OF BATTLE, 5 JULY 1943

GERMAN FORCES

HEERESGRUPPE SÜD (GENERALFELDMARSCHALL ERICH VON MANSTEIN)

4.Panzerarmee (Generaloberst Hermann Hoth)

XLVIII Panzerkorps (General der Panzertruppen Otto von Knobelsdorff)
- 3.Panzer-Division (Generalleutnant Franz Westhoven)
- 11.Panzer-Division (Generalmajor Johann Mickl)
- Panzergrenadier Division Groβdeutschland (Generalleutnant Walter Hörnlein)
- Panzer-Regiment 39 (Major Meinrad von Lauchert)
- 167.Infanterie-Division (Generalleutnant Wolf Günther Trierenberg)
- 332.Infanterie-Division[1] (Generalmajor Adolf Trowitz)

II SS-Panzerkorps (General der Waffen-SS Paul Hausser)
- 1.SS-Panzergrenadier-Division Leibstandarte SS Adolf Hitler (SS-Standartenführer Theodor Wisch)
- 2.SS-Panzergrenadier-Division Das Reich (SS-Gruppenführer Walter Krüger)
- 3.SS-Panzergrenadier-Division Totenkopf (SS-Brigadeführer Max Simon)

LII Armeekorps (General Eugen Ott)
- 57.Infanterie-Division (Generalmajor Otto Fretter-Pico)
- 255.Infanterie-Division (Generalleutnant Walter Poppe)

Armee-Abteilung Kempf (General der Panzertruppe Werner Kempf)

III Panzerkorps (General der Panzertruppe Hermann Breith)
- 6.Panzer-Division (Generalmajor Walther von Hünersdorff – WIA 13 July)
- 7.Panzer-Division (Generalleutnant Hans Freiherr von Funck)
- 19.Panzer-Division (Generalleutnant Gustav Richard Ernst Schmidt)
- 168.Infanterie-Division (less elements) (General der Artillerie Walter Chales de Beaulieu)
- schwere Panzer-Abteilung 503 (Hauptmann Clemens Graf von Kageneck)

XI Armeekorps (Generaloberst Erhard Raus)
- 106.Infanterie-Division (Generalleutnant Werner Forst)
- 320.Infanterie-Division (Oberst Kurt Röpke)

1 332.Infanterie-Division was transferred back to LII Armeekorps on 6 July 1943.

Table 1: Heeresgruppe Süd tank strength, 5 July 1943 (operational)

Unit	Heavy		Medium		Light		Other	Total
	Tiger	Panther	PzKpfw III	PzKpfw IV	PzKpfw II	PzBef		
3.Panzer-Division			59	23	7	1		**90**
6.Panzer-Division			52	32	13	6		**103**
7.Panzer-Division			55	38	12	7		**112**
11.Panzer-Division			62	26	8	4		**100**
19.Panzer-Division			38	38	2	3		**81**
Großdeutschland	12		23	68	4	8		**115**
SS-LSSAH	12		13	67	4	9		**105**
SS-Das Reich	12		62	33	1	10	20	**138**
SS-Totenkopf	11		63	52		9		**135**
10.Panzer-Brigade		200						**200**
s.Pz.Abt. 503	42							**42**
Total	**89**	**200**	**427**	**377**	**51**	**57**	**20**	**1221**

LUFTFLOTTE 4 (GENERAL DER FLIEGER OTTO DESSLOCH)

Fliegerkorps VIII (Generalmajor Hans Seidemann)

Stab., I., II./Kampfgeschwader 3 (Ju-88A)
Stab., I., II., III./Kampfgeschwader 27 (He-111H)
Stab., II., III./Kampfgeschwader 55 (He-111H)
I./Kampfgeschwader 100 (He-111)
Stab., I., II., III./Sturzkampfgeschwader 2 (Ju-87D)[2]
Panzerjägerstaffel/Sturzkampfgeschwader 2 (Ju-87D)
Stab., I., II., III./Sturzkampfgeschwader 77 (Ju-87D)
Stab., I., II./Schlachtgeschwader 1 (Fw-190A-5/Hs-123)
Panzerjägd-Kommando/Schlachtgeschwader 1 (Hs-129 B-2)
4.(Pz), 8.(Pz)/Schlachtgeschwader 1 (Hs-129 B-2)
4.(Pz), 8.(Pz)/Schlachtgeschwader 2 (Hs-129 B-2)
Panzerjägerstaffel/Jagdgeschwader 51 (Hs-129B-2)
Stab., I., II., III./Jagdgeschwader 52 (Bf-109G)
II., III./Jagdgeschwader 3 (Bf-109G)
Hungarian 5/I. Fighter Group (Puma) (Bf-109F)

2 The Stuka ace Hauptmann Hans-Ulrich Rudel was assigned to III./Sturzkampfgeschwader 2. At the start of *Zitadelle*, Sturzkampfgeschwader 2 had a small number of Ju-87 equipped with two 3.7cm cannons.

Table 2: Fliegerkorps VIII aircraft supporting Heeresgruppe Süd

Aircraft type	Number operational
Fighters	196
Ground attack	426
Bombers	293
Reconnaissance	106
Total	**1,021**

SOVIET ARMY

VORONEZH FRONT (GENERAL NIKOLAI F. VATUTIN)

6th Guards Army (General-leytenant Ivan M. Chistiakov)

22nd Guards Rifle Corps (General-major Nikolai B. Ibianskiy)
- 67th Guards Rifle Division (Polkovnik Aleksei I. Baksov, NKVD)
- 71st Guards Rifle Division (Polkovnik Ivan P. Sibakov)
- 90th Guards Rifle Division (Polkovnik Viktor G. Chernov)

23rd Guards Rifle Corps (General-major Pavel P. Prokofevich)
- 51st Guards Rifle Division (General-major Nikolai T. Tavartkiladze)
- 52nd Guards Rifle Division (Polkovnik Ivan M. Nekrasov)
- 375th Rifle Division (Polkovnik Petr D. Govorunenko)

89th Guards Rifle Division (Polkovnik Ivan A. Pigin)
96th Tank Brigade (Polkovnik Viktor G. Lebedev)

7th Guards Army (General-leytenant Mikhail S. Shumilov)

24th Guards Rifle Corps (General-major Nikolai A. Vasilev)
- 15th Guards Rifle Division (General-major Emelian I. Vasilenko)
- 36th Guards Rifle Division (General-major Mikhail I. Denisenko)
- 72nd Guards Rifle Division (General-major Anatoliy I. Losev)
- 27th Guards Tank Brigade (Polkovnik M. V. Nevzhinsky)
- 201st Tank Brigade (Polkovnik A. I. Taranov)

25th Guards Rifle Corps (General-major G. B. Safiulin, NKVD)
- 73rd Guards Rifle Division (Polkovnik Semen A. Kozak)
- 78th Guards Rifle Division (General-major Aleksandr V. Skvortsov)
- 81st Guards Rifle Division (Polkovnik Ivan K. Morozov)

213th Rifle Division (Polkovnik I. E. Buslaev)

38th Army (General-major Nikandr E. Chibisov)
50th Rifle Corps (General-major Sarkis S. Martirosian)
167th Rifle Division (General-major Ivan I. Mel'nikov)
232nd Rifle Division (General-major Ivan I. Ulitin)
340th Rifle Division (Polkovnik Mitrofan I. Shadrin)
192nd Separate Tank Brigade (Polkovnik Aleksandr F. Karavan)
51st Rifle Corps (General-major Petr P. Avdeenko)
180th Rifle Division (Polkovnik Fedor P. Shmelev)
240th Rifle Division (General-major Terentiy F. Umansky)
180th Separate Tank Brigade (Polkovnik Mikhail Z. Kiselev)
204th Rifle Division (Polkovnik Ksaveriy M. Baidak)
40th Army (General-leytenant Kirill S. Moskalenko)
47th Rifle Corps (General-major Afanasiy S. Griaznov)
161st Rifle Division (General-major Petr V. Tertyshny)
206th Rifle Division (Polkovnik V. I. Rut'ko)
237th Rifle Division (General-major Petr A. Diakonov)
52nd Rifle Corps (General-major Frants I. Perkhorovich)
100th Rifle Division (Polkovnik Nikolai A. Bezzubov)
219th Rifle Division (General-major Vasily P. Kotel'nikov)
309th Rifle Division (Polkovnik Dmitri F. Dremin)
184th Rifle Division (Polkovnik Samuel I. Tsukarev)
86th Separate Tank Brigade (Polkovnik V. S. Agafonov)
69th Army (General-leytenant Vasily D. Kriuchenkin)
48th Rifle Corps (General-major Zinovy Z. Rogozny)
107th Rifle Division (General-major Petr M. Bezhko)
183rd Rifle Division (General-major Aleksandr S. Kostitsyn, NKVD)
305th Rifle Division (Polkovnik Aleksandr F. Vasil'ev)
49th Rifle Corps (General-major Guriy N. Terentev)
111th Rifle Division (Podpolkovnik Andrei N. Petrushin)
270th Rifle Division (Polkovnik Ivan P. Beliaev)
1st Tank Army (General-leytenant Mikhail E. Katukov)
3rd Mechanized Corps (General-major Semen M. Krivoshein)
6th Tank Corps (General-major Andrei L. Getman)
31st Tank Corps (General-major Dmitri Kh. Chernienko)
Under front control:
2nd Guards Tank Corps (Polkovnik Aleksei S. Burdeinyi)
5th Guards Tank Corps (General-leytenant Andrei G. Kravchenko)
35th Guards Rifle Corps (General-leytenant Sergei G. Goriachev)
92nd Guards Rifle Division (Polkovnik V. F. Trunin)
93rd Guards Rifle Division (General-major Vladimir V. Tikhomirov)
94th Guards Rifle Division (Polkovnik I. G. Russkikh)

Table 3: Soviet armour strength

Formation	T-34	T-70/T-60	KV-1/2	Grant/Stuart	Matilda/ Valentine/ Churchill	SU	Total
6 GA	46	5/0		24/54		21	**150**
7 GA	114	24/0	23		16/31/0	31	**239**
40 A	83	24/12					**119**
1 TA	477	89/13				21	**600**
2 GTC	99	72/0			0/0/16		**187**
5 GTC	127	63/0			0/0/21		**211**
Voronezh Front total	**946**	**277/25**	**34**	**24/54**	**16/31/37**	**93**	**1,537**
5 GTA	389	208/0	1		0/0/41	41	**680**
2 TC	98	63/0					**161**
10 TC	97	64/0				21	**182**
Grand total	**1,530**	**612/25**	**35**	**24/54**	**16/31/78**	**155**	**2,560**

2nd Air Army (VA – Vozdushnaya Armiya) (General-leytenant of Aviation Stepan A. Kravsovsky)
4th Fighter Aviation Corps (IAK – Isrebitelnyi Aviatsionnyi Korpus)
294th Fighter Aviation Division (IAD – Isrebitelnyi Aviatsionnyi Division)
183rd Fighter Aviation Regiment (Yak-1)
427th Fighter Aviation Regiment (Yak-1)
302nd Fighter Aviation Division
193rd Fighter Aviation Regiment (La-5)
240th Fighter Aviation Regiment (La-5)
297th Fighter Aviation Regiment (La-5)
5th Fighter Aviation Corps
8th Guards Fighter Aviation Division (GIAD)
40th Guards Fighter Aviation Regiment (La-5)
41st Guards Fighter Aviation Regiment (La-5)
88th Guards Fighter Aviation Regiment (La-5)
205th Fighter Aviation Division
27th Fighter Aviation Regiment (Yak-1)
438th Fighter Aviation Regiment (Yak-1)
508th Fighter Aviation Regiment (Yak-7B)
1st Bomber Aviation Corps (BAK)
1st Guards Bomber Aviation Division (GBAD)
80th Guards Bomber Aviation Regiment (Pe-2)

81st Guards Bomber Aviation Regiment (Pe-2)
82nd Guards Bomber Aviation Regiment (Pe-2)
293rd Bomber Aviation Division (BAD)
780th Bomber Aviation Regiment (Pe-2)
804th Bomber Aviation Regiment (Pe-2)
854th Bomber Aviation Regiment (Pe-2)
1st Assault Aviation Corps (ShAK)
266th Ground Attack Aviation Division (ShAD)
66th Ground Attack Aviation Regiment (Il-2)
673rd Ground Attack Aviation Regiment (Il-2)
735th Ground Attack Aviation Regiment (Il-2)
292nd Ground Attack Aviation Division
667th Ground Attack Aviation Regiment (Il-2)
800th Ground Attack Aviation Regiment (Il-2)
820th Ground Attack Aviation Regiment (Il-2)
203rd Fighter Aviation Division
247th Fighter Aviation Regiment (Yak-1)
270th Fighter Aviation Regiment (Yak-1)
516th Fighter Aviation Regiment (Yak-1)
291st Ground Attack Aviation Division
243rd Ground Attack Aviation Regiment (Il-2)
245th Ground Attack Aviation Regiment (Il-2)
313th Ground Attack Aviation Regiment (Il-2)
617th Ground Attack Aviation Regiment (Il-2)
954th Ground Attack Aviation Regiment (Il-2)
208th Night Bomber Aviation Division (NBAD)
646th Night Bomber Aviation Regiment
715th Night Bomber Aviation Regiment
887th Night Bomber Aviation Regiment

17th Air Army (General-leytenant of Aviation Vladimir Sudets)

1st Composite Air Corps (SAK)
288th Fighter Aviation Division
659th Fighter Aviation Regiment (Yak-7B)
866th Fighter Aviation Regiment (Yak-7B)
5th Guards Ground Attack Aviation Division (GShAD)
93rd Guards Ground Attack Aviation Regiment (Il-2)
94th Guards Ground Attack Aviation Regiment (Il-2)
95th Guards Ground Attack Aviation Regiment (Il-2)
3rd Composite Air Corps
207th Fighter Aviation Division
737th Fighter Aviation Regiment (Yak-7B)
814th Fighter Aviation Regiment (Yak-1)
867th Fighter Aviation Regiment (Yak-1)
5th Guards Fighter Aviation Regiment (La-5)
290th Ground Attack Aviation Division
299th Ground Attack Aviation Regiment (Il-2)
625th Ground Attack Aviation Regiment (Il-2)
775th Ground Attack Aviation Regiment (Il-2)
305th Ground Attack Aviation Division
175th Ground Attack Aviation Regiment (Il-2)
237th Ground Attack Aviation Regiment (Il-2)
955th Ground Attack Aviation Regiment (Il-2)
9th Composite Air Corps
295th Fighter Aviation Division
31st Fighter Aviation Regiment (La-5)
116th Fighter Aviation Regiment (La-5)
164th Fighter Aviation Regiment (La-5)
306th Ground Attack Aviation Division
672nd Ground Attack Aviation Regiment (Il-2)
951st Ground Attack Aviation Regiment (Il-2)
995th Ground Attack Aviation Regiment (Il-2)
244th Bomber Aviation Division
260th Bomber Aviation Regiment (Boston)
449th Bomber Aviation Regiment (Boston)
861st Bomber Aviation Regiment (Boston)
262nd Night Bomber Aviation Division
370th Night Bomber Aviation Regiment
97th Guards Night Bomber Aviation Regiment (U-2)

Table 4: Operational VVS (Voyenno-Vozdushnye Sily – Military Air Forces) aircraft supporting Voronezh Front

Type of aircraft	2 VA	17 VA	Total
Fighters	389	163	552
Ground attack (Il-2)	276	239	515
Bombers	172	76	248
Night-bombers	34	60	94
Reconnaissance	10	0	10
Total	**881**	**538**	**1,419**

FROM SOUTH-WEST FRONT

2nd Tank Corps (General-major Aleksei F. Popov)

STAVKA RESERVE (RVGK)/STEPPE FRONT (GENERAL IVAN S. KONEV)

5th Guards Army (General-leytenant Aleksei S. Zhadov)
10th Tank Corps (General-leytenant Vasily G. Burkov)
32nd Guards Rifle Corps (General-major Aleksandr I. Rodimtsev)
13th Guards Rifle Division (General-major Gleb V. Baklanov)
66th Guards Rifle Division (General-major Akim V. Iakshin)
6th Guards Airborne Division (Polkovnik Mikhail N. Smirnov)
33rd Guards Rifle Corps (General-major Iosif I. Popov)
95th Guards Rifle Division (Polkovnik A. N. Liakhov)
97th Guards Rifle Division (Polkovnik Ivan I. Antsiferov)
9th Guards Airborne Division (Polkovnik Aleksandr M. Sazonov)
42nd Guards Rifle Division (General-major Fedor A. Bobrov)

5th Guards Tank Army (General-leytenant Pavel A. Rotmistrov)

5th Guards Mechanized Corps (General-major Boris M. Skvortsov)
18th Tank Corps (General-major Boris S. Bakharov)
29th Tank Corps (General-major Ivan F. Kirichenko)

OPPOSING PLANS

GERMAN

Hitler was shocked by the defeat at Stalingrad, but quickly recovered his confidence once von Manstein began to roll back the Soviet tide. In Hitler's mind, this operational triumph demonstrated that the Wehrmacht still had the tactical edge and could inflict painful defeats on the Red Army. Furthermore, Hitler regarded the defeat at Stalingrad as an aberration – not as an indication of faulty decision-making on his part or of his commanders. Politically, Hitler realized that he needed a tangible victory in 1943 in order to reassure the German home front that Stalingrad was merely a 'bump in the road' on the path to inevitable German victory and to take their minds off the increasing Allied bombing of their cities. He also needed a battlefield victory to keep his Axis allies in line; after Stalingrad they were all looking to avoid being dragged down with the Third Reich. A quick, substantial victory in the old style of 1940–41 would restore the Wehrmacht's prestige and give its weakened forces on the Eastern Front a chance to recover their strength. Thus before Kharkov had even been recaptured, Hitler decided that another grand summer offensive was necessary to keep the enemy off balance. Although there was limited discussion within the OKH about a renewed offensive against Leningrad, most attention was focused on Heeresgruppe Süd's area of responsibility and von Manstein recommended the obvious target – the protruding Kursk salient.

In early March 1943, Hitler directed the OKH to begin planning for the offensive, designated Operation *Zitadelle*. The basic concept developed by General der Infanterie Kurt Zeitzler, chief of the OKH, was a double pincer attack with Heeresgruppe Mitte attacking from the Orel sector with Generaloberst Walter Model's 9.Armee (AOK 9) and Heeresgruppe Süd attacking from the Belgorod sector with 4.Panzerarmee. The two armoured pincers would meet near Kursk, trapping several Soviet armies – just like the great Kessel battles of 1941. Zeitzler knew the Wehrmacht no longer had the resources to conduct large-scale offensives, but presented *Zitadelle* as a classic combined-arms pincer attack, conducted in fair weather and across reasonably flat terrain. Under these idealized conditions, a local success seemed quite feasible. On 13 March 1943, the OKH issued Operations Order No. 5, providing the first intimation of *Zitadelle*.

Once von Manstein's counter-offensive came to a successful conclusion, attention at the front shifted to preparations for *Zitadelle*. OKH Operation Order No. 6, issued on 15 April 1943, provided more guidance on *Zitadelle*'s

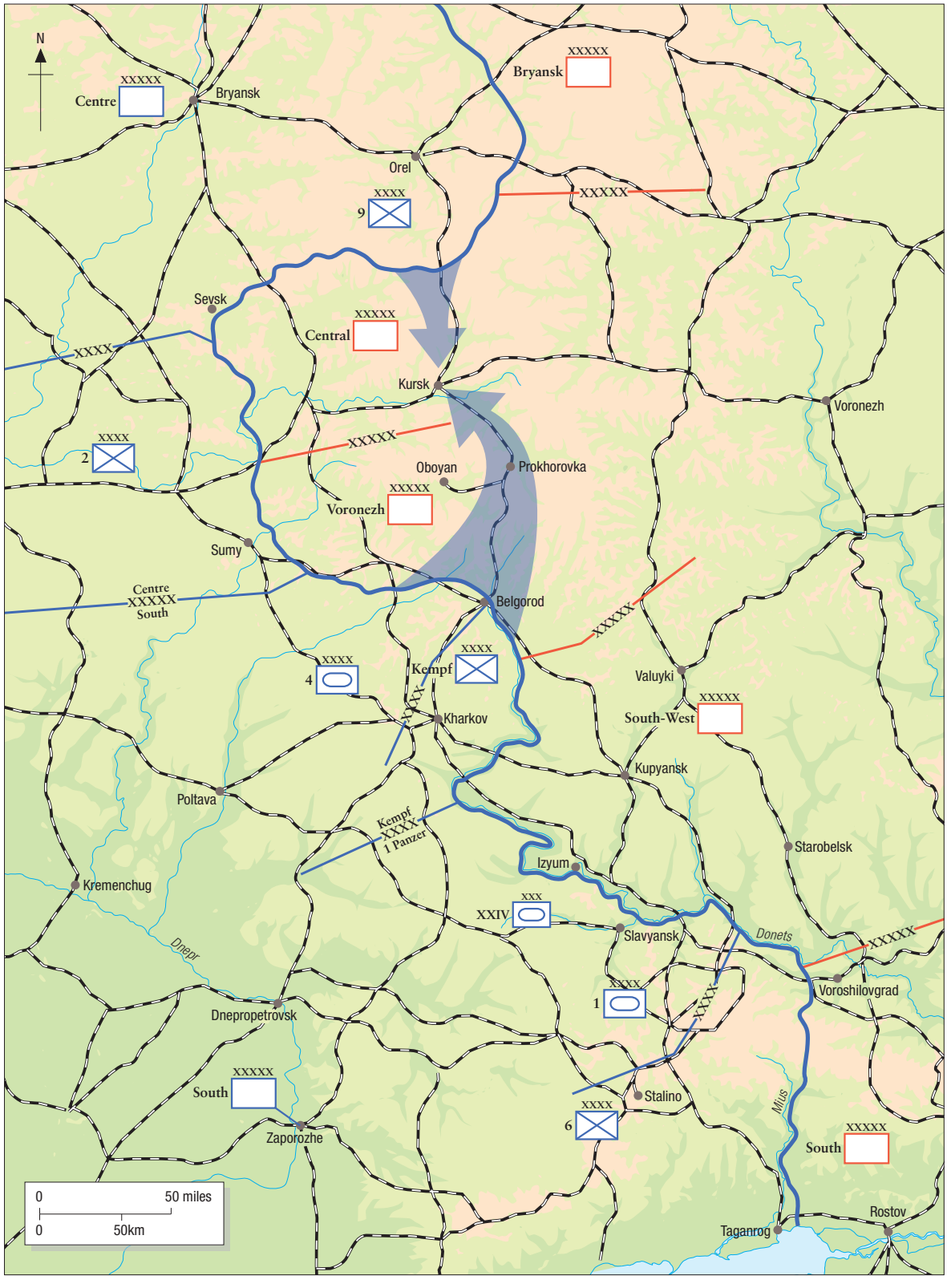
operational boundaries and objectives. The order specified that Hitler wanted the offensive to begin 'as soon as the weather permits' and that he wanted 'the best units, the best weapons, the best leaders and great quantities of munitions … to be focused at the *Schwerpunkt*.' *Zitadelle* was originally premised upon the idea of hitting the Soviet forces in the Kursk salient before they had a chance to recover completely from the 'Backhand Blow', and von Manstein was optimistic that after a short period of recuperation, his forces could gain another tactical victory. Hitler was encouraged by von Manstein and thought *Zitadelle* could achieve even more – he saw it as the beginning of a series of counter-offensives to regain territory lost during the winter. The revised guidance from the OKH stated that the operation was expected to begin in early May 1943.

According to the original *Zitadelle* plan, von Manstein was expected to smash through the Voronezh Front's defences north of Belgorod with Hoth's Panzers, advance roughly 115km and link up with Model's AOK 9 in about five days. The primary objective, the city of Kursk, was a vital road and rail junction. Hoth's intermediate objective was the small city of Oboyan, 60km north of the start line. Much of the German planning for *Zitadelle* appears to have been made with little regard for terrain or the enemy. Compared to the distances covered by advances in 1941–42, the requirement to advance 115km seemed well within the capabilities of a Panzer army. When it became clear in April that the Soviets were fortifying the Kursk salient, Hitler promised von Manstein significant reinforcements for the operation, including more Tiger tanks and a battalion of the new Panther tanks. Hitler had an almost religious faith in the new tanks and believed that they would enable Model and von Manstein to achieve a major victory. Von Manstein was particularly enthusiastic about the offensive because it meant that his command had priority for reinforcements.

Yet others were not so sure, as intelligence collection in April revealed the extent of Soviet defensive preparations. Germany's proven *Bewegungskrieg* (mobile warfare) doctrine had succeeded by massing combat power into a *Schwerpunkt* against the enemy's weakest points, enabling a breakthrough. Yet at Kursk, the OKH ignored this proven method and committed the *Schwerpunkt* against what was likely to be the strongest points in the enemy's defence – a clear violation of doctrine. Model in particular did not relish the idea of a costly frontal attack against an alert enemy and believed that the offensive would be a Pyrrhic victory, at best. He bluntly pointed out to the Führer that the Soviets were using the lull to construct multiple lines of defence in the Kursk salient, indicating that strategic surprise was already lost. Instead, both Model and Generaloberst Heinz Guderian, Inspector of *Panzertruppen*, recommended building up a strong mobile reserve to deal with future Soviet offensives. Hitler was not interested in a defensive strategy, but he did acknowledge that Soviet defences around Kursk were improving. All the principles came together in Munich on 3 May to discuss *Zitadelle*; Guderian and Model were opposed to the operation, while von Manstein and von Kluge were in favour. After mulling it over for three days, Hitler decided to postpone *Zitadelle* until 12 June, giving time for additional reinforcements to reach both army groups.

As May progressed, the German strategic situation visibly deteriorated, as Panzerarmee Afrika was forced to surrender to the Anglo-Americans in Tunis and the U-boats were decisively defeated in the battle of the Atlantic. As defeat followed defeat, Hitler regarded *Zitadelle* as his only chance to

The German plan for *Zitadelle*, July 1943.



Soviet prisoners march past a German medical unit. Von Manstein's forces took about 30,000 prisoners during *Zitadelle*, mostly from Chistiakov's 6th Guards Army. Note that not a single German guard is visible escorting the prisoners – many of whom would choose to join the Wehrmacht as *Hiwis* (helpers) rather than slowly starve to death in POW camps. (Bundesarchiv, Bild 101I-022-2925-05, Fotograf: Wolff/ Altvater)

gain another attention-grabbing victory in 1943. However, the weather did not cooperate as the spring rains lasted until 31 May, further slowing down the German build-up for the offensive. When June arrived, Hitler alternated between confidence and uncertainty about *Zitadelle*, but would not cancel the operation since he was desperate for some kind of victory. Instead, he delayed the operation further, so that more Tigers and the much-awaited Panthers could join von Manstein's command.

Yet logistic issues had greater bearing on the timing of *Zitadelle* than the number of Tiger tanks available. The OKH directed Heeresgruppe Süd to stockpile enough fuel, ammunition and other supplies to sustain an 18-day offensive, but quartermasters failed to achieve even this modest level by 4 July. Just prior to *Zitadelle*, von Manstein's mechanized forces had sufficient fuel and ammunition for a week of high-intensity combat. Once this slim reserve was spent, von Manstein's forces would have to reduce expenditures. Fliegerkorps VIII was equally hamstrung, with enough fuel for about 7–10 days of high operational tempo. Consequently, *Zitadelle* was going to be conducted on a logistical shoestring.

Von Manstein's operational concept for *Zitadelle* was to mass three corps-size Panzer wedges – supported by the Luftwaffe – and simply blast a path through Vatutin's defences, then push on to Kursk. No effort was made to incorporate deception into the plan. For a general who made his reputation through skilful battlefield manoeuvres, *Zitadelle* represented the nadir of von Manstein's operational talent. Having drawn the broad-brush concept, von Manstein then delegated most of the detailed planning for *Zitadelle* to Hoth and Kempf. He indicated that Hoth would make the main effort with II SS-Panzerkorps and XLVIII Panzerkorps, while Kempf would mount a supporting attack with III Panzerkorps and XI Armeekorps to protect Hoth's right flank from Soviet counterattacks. As Hoth and Kemp made their tactical plans for *Zitadelle*, they were aware that Vatutin's forces were building several lines of defence, but they failed to appreciate the scale of effort. Of note, they made no special provisions for obstacle breaching and assumed that division-level engineers could remove Soviet minefields without undue difficulty.

The OKH Operation Order No. 6 effectively locked the German corps commanders into a rigid operational concept (i.e. frontal attacks) that left little room for flexibility or initiative – the hallmarks of German tactical acumen. Furthermore, von Manstein violated the principle of unity of command by dividing the attack force between two different army-level commands, instead of assigning all three Panzerkorps to Hoth. As a result of this mistake, coordination between Hoth's forces and III Panzerkorps was poor from the beginning and would grow into a real problem during the

battle. Indeed, Hoth and Kempf would end up fighting separate, compartmentalized battles rather than a joint campaign. Another major mistake von Manstein made was to underestimate the terrain problem posed by the Donets River near Belgorod, which would make it very difficult for III Panzerkorps to keep up with the advance of Hoth's armour.

German pioneers have built a temporary bridge for three PzKpfw IV medium tanks across a Soviet anti-tank ditch. In addition to enemy mines, simple obstacles like this inflicted great delays upon German advances, particularly when covered by artillery and direct-fire weapons. At Kursk, the Red Army demonstrated that it was learning how to disrupt the standard German operational tempo. (Bundesarchiv, Bild 101I-087-3680A-06, Fotograf: Etzhold)

Nor did von Manstein consider how he would hold the flanks of a narrow penetration corridor all the way to Kursk – which the Soviets could easily penetrate with armoured counterattacks. Von Manstein could only gather additional forces by further weakening Generaloberst Eberhard von Mackensen's 1.Panzerarmee, and even then, a few more divisions would not be sufficient to hold a perimeter around a large Kessel formed in the Kursk salient. Von Manstein was also responsible for holding the rest of his 400km-long front, held by 1.Panzerarmee and the new 6.Armee. The only significant reserve he could employ was General der Panzertruppe Walther Nehring's XXIV Panzerkorps, deployed near Izyum, which was assigned as the reaction force in case of a Soviet offensive along the Donets. Although German intelligence estimates of Soviet front-line dispositions were fairly accurate, von Manstein had no information on the size or location of the Stavka RVGK reserves – which was a dangerous intelligence gap. In the face of uncertainty, a nervous Hitler kept delaying the operation throughout May and June. He finally decided on 1 July that the start date would be 5 July.

SOVIET

Soviet hubris created by the victory at Stalingrad was brought back to earth by the defeat at Kharkov in mid-March 1943. The onset of the rainy *Rasputitsa* season temporarily halted mobile operations and gave Stavka time to reassess lessons learned from the winter counter-offensive. In Moscow, Marshal Georgy K. Zhukov and Marshal Aleksandr Vasilevsky, chief of the General Staff, began sketching out plans for the future. Both men adopted a cautious but optimistic outlook, inclined to avoid operations that offered the Germans a chance to repeat von Manstein's 'Backhand Blow' formula. Zhukov and Vasilevsky wanted to avoid the costly, hastily planned offensives of 1941–42 and make the best use of the Red Army's growing strength in carefully planned offensives.

Both Zhukov and Vasilevsky were convinced that the Germans still had the strength and will to mount another summer offensive, and based upon the deployment of *Panzer-Divisionen* they expected the Kursk salient to be the likely target. On 12 April 1943, Zhukov and Vasilevsky briefed Stalin on their estimate of the situation and both urged caution. Zhukov overstated German capabilities by claiming that if successful in reducing the Kursk salient, the Germans would likely follow up with another push towards Moscow. Zhukov

argued that the best course of action was to allow the Germans to attack first. He and Vasilevsky advocated creating a multi-layered defensive belt to protect the Kursk salient from a pincer attack, while building up a powerful operational reserve near Voronezh. Zhukov concluded that the German offensive would impale itself upon the Soviet defences around Kursk, wrecking their best divisions, then the Red Army could use its operational reserves to launch a series of powerful counter-offensives that could first liberate Kharkov and Orel, then roll the Germans back to the Dnepr River.

Although impatient to push the Germans out of the Soviet Union, Stalin was impressed by Zhukov's and Vasilevsky's well-argued assessment and ordered the forces near the Kursk salient to shift to the strategic defensive. Like Hitler, Stalin also promised reinforcements for Rokossovsky's Central Front on the northern side of the Kursk salient and Vatutin's Voronezh Front on the southern side – but unlike Hitler, Stalin made good on his promises. Upon Zhukov's recommendation, General Ivan S. Konev was put in charge of assembling the operational reserves for the Kursk salient and his command would eventually be activated as the Steppe Front; Stalin was initially reluctant since he had just relieved Konev of command of the Kalinin Front, but eventually agreed. Henceforth, Rokossovsky and Vatutin received priority for replacements and supplies, enabling them to rebuild their battle-weary formations during the spring. Zhukov unwittingly oversold Stalin into believing that Soviet defences would be strong enough to shatter the attacking German divisions, and he did not mention that the Germans might actually succeed in gaining ground before being halted.

In late March, Vatutin replaced Golikov and began developing a defence in depth across a 150km-wide front north of Belgorod. A line of combat outposts was established closest to the Germans, in order to prevent the enemy from observing the main line of resistance. Vatutin received thousands of local civilian labourers, as well as military engineer battalions, to begin construction of anti-tank ditches, trenches and bunkers. The engineers also began laying thousands of mines. Based on Stavka's estimate of the type of defence required to stop a German combined-arms attack, Vatutin ordered his subordinates to construct two lines of defence, while the front would deploy its reserves in a third line. In the past, the Germans had simply blitzed through Soviet linear defences, which caused the defence to rapidly collapse, but the new Soviet defensive tactics anticipated units becoming isolated and ensured that they had the resources to remain in the fight. Stavka believed that defence-in-depth tactics, with minefields covered by interlocking fields of fire, would slow the tempo of the German offensive and force them to fight a grinding battle of attrition.

Vatutin was not sure whether von Manstein would attack due north from Belgorod towards Oboyan or try to follow the Kursk–Belgorod rail line by attacking towards north-east to Prokhorovka. Consequently, he decided to spread his main defence across a 115km-wide front to cover both enemy courses of action. General-leytenant Ivan M. Chistiakov's 6th Guards Army blocked the main route north to Oboyan; by early July he had four rifle divisions from the 22nd and 23rd Guards Rifle corps, 129 tanks and 134,000 mines deployed in his first echelon across a 60km-wide front. He had two more rifle divisions in his second echelon. Chistiakov was lavishly provided with 573 anti-tank guns to equip 28 anti-tank strongpoints, but his artillery support was primarily based on division-level guns. General-leytenant Mikhail S. Shumilov's 7th Guards Army covered Chistiakov's left flank, with

four rifle divisions and 40 tanks deployed in his first echelon and three rifle divisions and 200 tanks in the second echelon. General-leytenant Kirill S. Moskalenko's 40th Army was on Chistiakov's right flank, with seven rifle divisions. Vatutin deployed General-leytenant Vasily D. Kriuchenkin's 69th Army in his third line of defence with five rifle divisions and two reserve anti-tank brigades.

The VVS intended to provide Voronezh Front with an unprecedented amount of air support, from the 2nd and 17th VA, which together possessed over 1,400 operational aircraft. The primary mission of the VVS was to deny the Luftwaffe control of the air over the battlefield and these two air armies had a 2½:1 numerical superiority in fighters over Fliegerkorps VIII. In addition, the VVS deployed over 500 Il-2 Sturmoviks to provide close air support sorties to Vatutin's ground troops – the Germans had never faced this level of threat from Soviet aviation before. Yet while the VVS had grown steadily in size, the quality of Soviet pilots and aerial tactics still made both of these tasks a considerable challenge.

During the spring, Stavka was fed a steady stream of intelligence about German offensive plans by the British, who had successfully compromised the OKH's encrypted cipher traffic used to communicate orders to Heeresgruppe Süd. A sub-unit of the Ultra program, known as 'Tunny', passed the basic outline of *Zitadelle* to the Soviets. Although the information did not reveal von Manstein's exact axis of attack, the Soviets were well aware of the enemy order of battle and objectives. On 2 July, Stavka was informed that *Zitadelle* would begin in the next several days. Forewarned by 'Tunny', Stavka knew far more about *Zitadelle* than they had any previous German offensives.

In addition to preparing a deliberate defence, Vatutin was tasked with preparing for the follow-on counter-offensive, to commence shortly after *Zitadelle* was defeated. The planned counter-offensive, known as Operation *Rumyantsev*, would employ both Vatutin's and Konev's forces in a powerful attack to crush the weakened 4.Panzerarmee; this operation would open the door for a follow-on push to the Dnepr River.

In order for the Soviet defensive plan to work, operational commanders needed to remain calm and not commit their reserves too quickly. A battle of attrition takes time. At Waterloo, the Duke of Wellington famously stood his ground and refused to prematurely commit his reserves. However, Stalin and Khrushchev lacked this sang-froid and would react with visible alarm to every German advance, demanding immediate responses rather than allowing attrition to wear down the German spearheads. Soviet planning at Kursk would be undermined by politicians demanding that their generals 'do something' every time the enemy advanced a few kilometres. Consequently, once *Zitadelle* began, the Red Army was forced to abandon its carefully devised plans and fight an ad hoc battle.

Standard German tactical bridging was designed to get light and medium tanks across small water obstacles, and *Pioniere* could usually construct a 20-ton bridge in about three hours. However, the introduction of heavy tanks like the Tiger and the Panther turned even minor water courses like the Psel and the Pena into major obstacles. The Germans had a few 60-ton bridges for these heavy tanks, but they required far more effort to construct and were specifically targeted by Soviet artillery and Sturmoviks. (Bundesarchiv, Bild 101I-216-0412-16, Fotograf: Klintzsch)

THE CAMPAIGN

PRELIMINARY MOVES, 1 APRIL–4 JULY

Perhaps the greatest myth about Kursk is that prior to the start of *Zitadelle*, an unprecedented three-month lull settled over the Eastern Front. While it is true that no major ground operations occurred in the central part of the front between April and June 1943, the German forces on the Eastern Front still suffered nearly 112,000 casualties in this period, including 26,206 dead or missing. There was particularly heavy fighting at the southern end of the front as the Soviets attempted to crush the German 17.Armee in the Kuban bridgehead. Even though no major operations were conducted in the Kursk sector during April–June 1943, both sides used their artillery to interfere with defensive preparations. Normal 'wastage' at the front still cost Heeresgruppe Süd 22,696 casualties, while Armee-Abteilung Kempf suffered 4,440 casualties. During the same 'quiet' period, Heeresgruppe Süd reported taking 5,825 Soviet prisoners.

While ground combat remained limited, both sides launched significant aerial offensives between April and June in order to shape the coming battle. Luftflotte 4 and 6 conducted major daylight raids on the Kursk railyards in May and June, but the VVS retaliated by launching retaliatory raids against Luftwaffe airfields around the Kursk salient. Altogether, the units assigned to Fliegerkorps VIII lost 300 aircraft to enemy action between April and June.

German tanks advance across open terrain in the opening days of *Zitadelle*. Note that concealed anti-tank guns, often hidden in small depressions, are virtually invisible in this type of terrain until they open fire. Furthermore, even small hills offer significant tactical advantage in terms of observation. (Bundesarchiv, Bild 101I-022-2949-22)

On 30 June, the *Panzer-Divisionen* began moving from their assembly areas towards the front, which was still held entirely by infantry divisions. Except for the two Panther battalions, all other mechanized units were near the front by the morning of 4 July. The lead elements of the Panther battalions began arriving by rail on 1 July and were not able to move forward until late on 4 July; ominously, 20

Panthers broke down moving from the railhead to the front. About 180 Panthers arrived near Tomarovka under the command of Major Meinrad von Lauchert. Although assigned to Groβdeutschland for the attack, the regiment arrived so late that it was not briefed on the mission and did not have maps of the area, or even current radio frequencies.

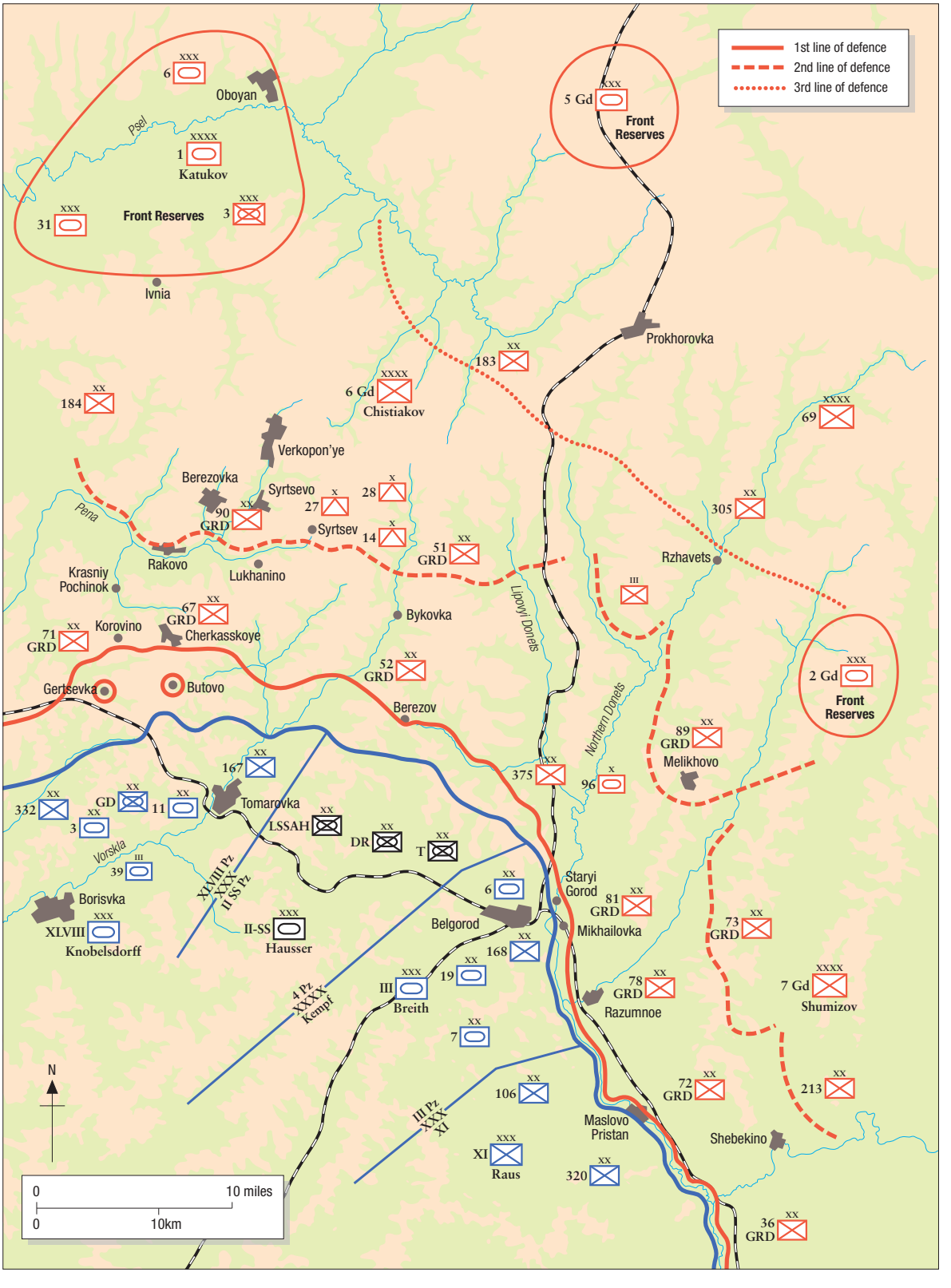
Before launching *Zitadelle*, Hoth intended to eliminate the line of Soviet combat outposts in front of the XLVIII Panzerkorps. In order to screen its first echelon defences from direct German observation, Chistiakov's 6th Guards Army established combat outposts in the no-man's land between the opposing sides. Most were platoon-size outposts, but the villages of Gertsevka and Butovo were each held by a rifle battalion and anti-tank guns. Hoth wanted to destroy these outposts before *Zitadelle* began so Soviet artillery fire would be less effective and his troops could strike the enemy's main line of resistance from the outset.

General der Panzertruppen Otto von Knobelsdorff's XLVIII Panzerkorps began a limited attack at 1700hrs on 4 July, with elements of five divisions against the Soviet strongpoints in Butovo and Gertsevka. Initially, the weather was warm and sunny, with the temperature hovering around 20°C (68°F). Preceded by Stuka attacks and an artillery bombardment, German infantry and *Pioniere* advanced across several kilometres of open ground and were stunned to run into dense minefields. Hauptmann Klaus Wackernagel, commander of I./Panzer-Füsilier-Regiment Groβdeutschland, stated, 'We had never seen minefields of such an expanse before; they were the first great surprise.' Soviet artillery battalions behind the main line of resistance opened fire and made it difficult for the Germans to breach the minefields. Only an hour after the attack began, severe thunderstorms limited visibility and German air support. It took until midnight to secure both villages and eliminate the remaining outposts. On the left, 332.Infanterie-Division advanced about 1km but failed to eliminate a Soviet battalion-size strongpoint in the village of Bubny, which would soon cause problems. Von Knobelsdorff's corps suffered 499 casualties in the preliminary attack, including the loss of two of Groβdeutschland's battalion commanders. At least 190 Soviet troops were captured in the fight for the outpost line, but it had served its purpose by confirming to Vatutin that *Zitadelle* was about to begin.

Hausser's SS-Panzerkorps waited until 2300hrs and then attacked with only part of the LSSAH and a detachment from Totenkopf. They quickly overwhelmed three platoon-size outposts from the 52nd Guards Rifle Division near the village of Yakhontov within two hours. Due to the barrier of the Donets River between III Panzerkorps and 7th Guards Army, Armee-Abteilung Kempf made no preliminary attacks.

Once it was clear that the main German offensive was about to begin the next morning, Khrushchev ordered Vatutin to implement the pre-existing plan to fire a counter-barrage against the German assembly areas. The problem was that the Soviets did not know exactly where the German assembly areas were located and it was night, so no observed fire was possible. Nevertheless, artillery from 6th Guards Army fired a 40-minute barrage starting at 0330hrs. Despite Soviet claims that their counter-barrage disrupted the beginning of the German offensive, there is no evidence that von Manstein's formations suffered any significant losses from this blind fire. As the rumble of artillery faded, the German assault units moved up into their jump-off positions and prepared to unleash the main attack.

The line-up: morning, 4 July 1943.



VON MANSTEIN'S OFFENSIVE, 5–10 JULY

5 July

Hoth's main effort on the first day of *Zitadelle* was to use XLVIII Panzerkorps to pierce the 67th Guards Rifle Division's defence south of the Pena River and to use II SS-Panzerkorps to overrun the 52nd Guards Rifle Division. These opening attacks were expected to breach the 6th Guards Army's first line of defence. Meanwhile, LII Armeekorps would conduct supporting attacks against Moskalenko's 40th Army and part of 71st Guards Rifle Division to protect the left flank of Hoth's advance, while Armee-Abteilung Kempf's attack across the Northern Donets would protect Hoth's right flank. Generalmajor Hans Seidemann's Fliegerkorps VIII would support II SS-Panzerkorps' attack in the morning, then shift to support XLVIII Panzerkorps in the afternoon.

Forewarned by the German attacks on 4 July, the Soviet 2nd VA and 17th VA decided to disrupt the enemy by launching pre-emptive attacks on Luftwaffe airfields around Kharkov, just after dawn (sunrise was at 0352hrs, and sunset at 2115hrs). Around 0400hrs, the German Freya radar near Kharkov detected over 100 inbound enemy aircraft and all the fighters of Jagdgeschwader (JG) 3 and JG 52 scrambled. By the time that 90 Il-2 Sturmoviks and 131 fighters arrived over the German airfields, there were over 100 Bf-109 fighters in the air to oppose them and the result was a disaster for the VVS; one-third of the Sturmoviks were shot down and the raids only caused modest disruption at the airfields.

Meanwhile, XLVIII Panzerkorps was still mopping up Soviet troops in the security zone and many mines had not yet been removed. Nevertheless, von Knobelsdorff began the offensive on schedule, with a 45-minute artillery preparation at 0415hrs. At 0500hrs, the ground attack began, but a combination of factors led to numerous delays. On von Knobelsdorff's extreme left flank, 332.Infanterie-Division's infantry were stopped by resolute Soviet resistance in Bubny. The division's failure to achieve its objectives impacted its neighbour, 3.Panzer-Division, which was supposed to attack north from Gertsevka to seize the town of Korovino; instead, one *Panzergrenadier-Bataillon* was forced to pivot from the primary axis of advance to screen the division's left flank. Although the Panzergrenadiers of Generalleutnant Franz Westhoven's 3. Panzer-Division advanced at 0500hrs, their tanks were delayed by mines and the rain-soaked terrain. When Oberst Günter Pape's Panzergrenadier-Regiment 394 approached the Berezovyi Ravine 1.5km north of Gertsevka, they were surprised to find an impressive anti-tank ditch, filled with water, which was 8–10m wide and 3–4m deep. The ravine itself was also flooded and the area between it and the anti-tank ditch filled with barbed wire and mines. Although

Crewmen from 3.Kompanie, Panzer-Abteilung 52 lounge around on their Panther Ausf. D tanks during a pause. This photo speaks volumes about the low level of training and leadership in the Panther battalions at Kursk. Normally, junior leaders and NCOs would ensure that Panzer crewmen used halts to check the condition of the road wheel hubs (too warm indicates insufficient grease in the hub), track and engine temperature, instead of just lying around talking and daydreaming. (Author's collection)

the Luftwaffe had taken aerial photographs of this ravine before the battle, XLVIII Panzerkorps staff failed to identify this ravine as a major obstacle. Since the division's bridging units were well to the rear, the advance halted.

More than anything else, the Berezovyi Ravine unhinged von Knobelsdorff's attack on the first day of *Zitadelle*. After several hours under enemy artillery fire, Pape's Panzergrenadiers managed to get across the muddy ravine, but without heavy weapons. It was not until 1650hrs that a 16-ton bridge was completed and the first tanks from Panzer-Regiment 6 were able to cross. It took another two hours before Westhoven's division began its attack into the fortified town of Korovino, held by the 210th Guards Rifle Regiment, five anti-tank batteries and an artillery battalion. Pape's Panzergrenadier-Regiment 394 led the assault into the town, with only modest tank support, and succeeded in seizing this objective by 2020hrs. However, Oberst Pape was wounded in the fight for the town and the Soviet defenders simply fell back 2km. Although behind schedule, 3.Panzer-Division managed to penetrate the outer layer of the 71st Guards Rifle Division's first echelon defence at the cost of 170 casualties and 10 tanks knocked out.

Generalleutnant Walter Hörnlein's Großdeutschland encountered even more difficulty getting across the Berezovyi Ravine. Hörnlein conducted a two-pronged attack north towards the fortified town of Cherkasskoye, with Oberst Erich Kahsnitz's Fusilier-Regiment on the left and Oberst Karl Lorenz's Grenadier-Regiment on the right. The bulk of Oberst Hyazinth Graf Strachwitz's Panzer-Regiment and the assault guns marched in support of Lorenz's Panzergrenadiers, with the Panther battalions assigned to support the Fusiliers. Right from the off, the advance went badly for Großdeutschland as a number of Strachwitz's tanks were damaged in an undetected minefield. Kahsnitz's Fusilier-Regiment reached the anti-tank ditch south of the Berezovyi Ravine and came under heavy artillery fire; some infantry crossed, but no vehicles. The ravine here was essentially a waterlogged morass that brought Großdeutschland's left hook to a complete halt. At 0800hrs, von Lauchert led the two Panther battalions north, following the Fusilier-Regiment; six more Panthers caught fire moving just 9km. When the Panthers reached the Berezovyi Ravine, most of Kahsnitz's Fusilier-Regiment was still clustered south of the obstacle and the *Pioniere* had not succeeded in creating a crossing. Polkovnik Aleksei I. Baksov's 67th Guards Rifle Division poured artillery fire onto the stalled German regiment, while groups of Il-2 Sturmovik's strafed vehicles stuck in the morass. Since Fliegerkorps VIII was entirely committed to supporting II SS-Panzerkorps at this point, the 2nd VA could freely attack von Knobelsdorff's troops. Kahsnitz requested

Infantry from the Großdeutschland Division occupying hasty positions on the edge of a Russian village. The Großdeutschland was one of the few German units still with high-quality infantry by mid-1943, but this fine division was ill used during the operation and accomplished very little. Kursk was very much an infantry battle and the erosion of German infantry strength made it difficult to hold captured terrain and vulnerable flanks. (Bundesarchiv, Bild 101I-732-0135-22, Fotograf: Göttert)

counter-battery fire to suppress the Soviet artillery but was refused because Groβdeutschland's artillery was temporarily out of ammunition – they had failed to bring enough forward with them. Amazingly, Panzer-Abteilung 51 ignored the obvious traffic jam and drove straight into this mess, and soon 25 Panthers were immobilized by mines and mechanical defects in Baksov's kill zone. The attack of the Fusiliers and the Panthers was a fiasco and Oberst Kahsnitz was among the casualties.

Further east, Lorenz's Panzergrenadiers also had difficulty getting across the Berezovyi Ravine, but managed to get infantry and a few tanks across by 1000hrs. Most of Strachwitz's tanks bypassed the ravine to the east, but this cost them time threading their way through mines. The only one of von Knobelsdorff's divisions to remain on schedule was Generalmajor Johann Mickl's 11.Panzer-Division, which attacked north from Butovo and was able to avoid the Berezovyi Ravine. Although it lost a number of its tanks to mines, 11.Panzer-Division was able to reach the area east of Cherkasskoye by early afternoon. Concerned by this German armoured advance, Chistiakov committed the 245th Tank Regiment to counterattack Mickl's spearhead. However, Grants and Stuarts were no match for the veterans of Panzer-Regiment 15, who knocked out 20 of the 39 Soviet tanks. Meanwhile, Lorenz finally managed to get three Panzergrenadier battalions and some tanks across the Berezovyi Ravine, while a battalion of the Fusilier-Regiment and a few of von Lauchert's Panthers also made it over. By 1900hrs, the Germans mounted a converging attack on the 196th Guards Rifle Regiment in Cherkasskoye, with Großdeutschland attacking from the west and 11.Panzer-Division from the east. Despite fierce Soviet resistance, most of the town was occupied by 2100hrs and the village of Yarki was also captured. The Großdeutschland suffered over 400 casualties, including two Panzer-Abteilung commanders wounded, getting over the Berezovyi Ravine and seizing Cherkasskoye. On the right flank of XLVIII Panzerkorps, 168.Infanterie-Division advanced a few kilometres, to maintain the front between von Knobelsdorff's troops and II SS-Panzerkorps.

Von Knobelsdorff succeeded in penetrating the 22nd Guards Rifle Corps' first echelon defences. Overall Soviet losses in this sector were about 3,700 troops, including over 700 killed and 550 captured. The survivors of these units withdrew to the second line of defence held by the 90th Guards Rifle Division. The XLVIII Panzerkorps suffered 1,505 casualties, including 206 dead or missing, while 43 tanks and 9 assault guns were knocked out (mostly by mines). Although XLVIII Panzerkorps achieved its first-day objectives, its forces were disorganized after this chaotic opening.

In II SS-Panzerkorps' sector, *Zitadelle* began with a barrage of over 33,000 shells and rockets, which cloaked the Soviet positions in a blanket of smoke, fire and debris. Then Stukas from Fliegerkorps VIII began bombing the front-line positions of Polkovnik Ivan M. Nekrasov's 52nd Guards Rifle Division between Berezovyi and the Vorskla River. Since many of the Soviet positions were dug into the sides of the numerous *balkas* (ravines) in the area, the German barrage inflicted relatively few casualties. Hausser made his main effort on his left, with SS-Standartenführer Theodor Wisch's LSSAH Division making a major push up the road to Prokhorovka, spearheaded by its 12 Tiger tanks. Here the relatively flat terrain favoured the Germans and hundreds of Stuka sorties bombed Soviet positions once detected. Nevertheless, the mass of German armour was brought to a halt by an anti-tank ditch surrounded by

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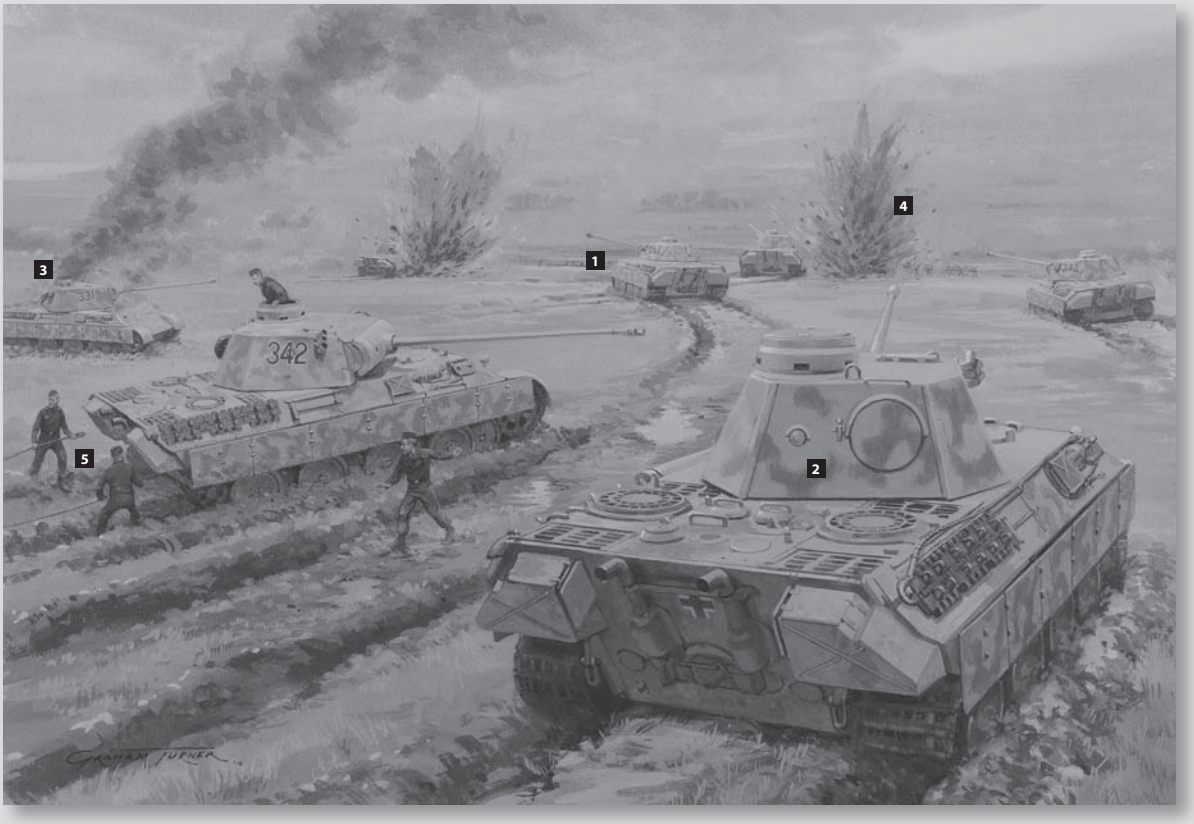


PANTHERS IN THE MUD, 0900HRS, 5 JULY 1943 (PP. 40–41)

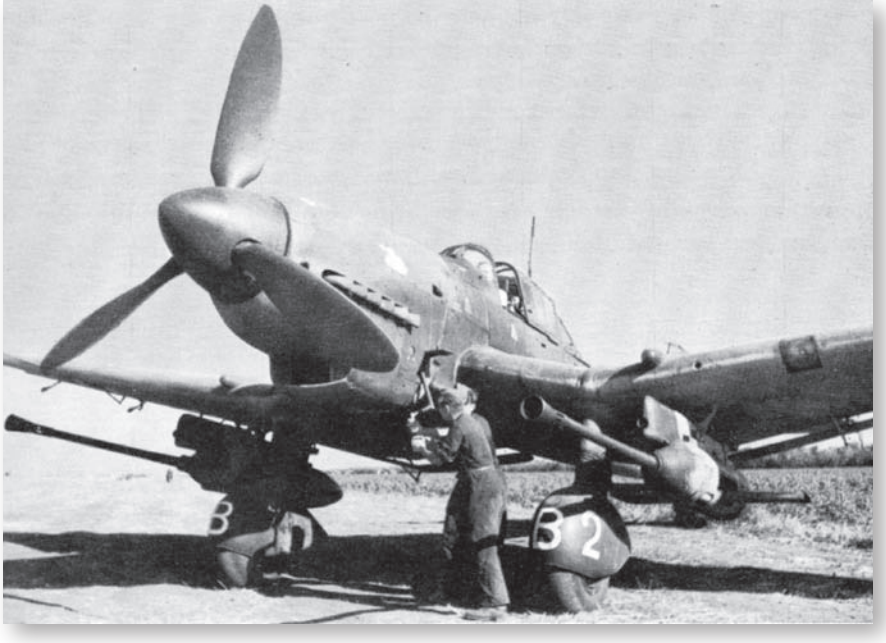
Hitler was counting on the new Panther medium tank to play a decisive role in Operation *Zitadelle*, but he ignored the advice of his tank expert, Generaloberst Heinz Guderian, that the Panther was not ready for combat. Two battalions with 204 Panther Ausf. D model tanks were hastily assembled at Grafenwöhr in June 1943 and formed into Panzer-Regiment 39, but there was no time to conduct unit-level training. More than one-third of the crewmen had no prior combat experience and the regiment was hurriedly sent by rail to the east without a commander. Major Meinrad von Lauchert, who had been training the crews at Grafenwöhr, took charge of both battalions. The Panthers barely made it to the front in time for *Zitadelle* and were attached to the Großdeutschland Division, but von Lauchert received no mission orders or even maps of the sector. More than 10 per cent of the mechanically unreliable Panthers fell out before the battle even began.

Three hours after the Großdeutschland commenced its ground attack, von Lauchert led the two Panther battalions north from their assembly area towards the division's first-day objective in Cherkasskoye. The Großdeutschland had encountered a major obstacle in the 80m-wide Berezovyi Ravine (**1**), filled with water, and had already decided to seek another crossing site – but nobody bothered to inform von Lauchert. Around 0900hrs, Panzer-Bataillon 51 (**2**) approached the ravine and, after some confusion, attempted to cross. Immediately, Panthers began bogging down in the muddy banks of the ravine and some had tracks damaged by anti-tank mines (**3**). Soon, the two lead companies were immobilized at the edge of the ravine and Soviet artillery targeted the traffic jam (**4**). The transmission on the Panther Ausf. D was too weak to back up in thick mud (**5**) and leaking fuel pumps caused multiple engine fires. It was a scene of chaos and confusion, uncommon for the Germans. Only one Panther was destroyed by enemy fire, but the combat debut of the Panther was an ignominious disaster.

Eventually, German *Pioniere* were able to clear the mines and establish a ford, although it was difficult to get the 45-ton Panthers across. By late afternoon, von Lauchert managed to get two Panther companies across the ravine to assist in the capture of Cherkasskoye, but over 100 Panthers had been lost on the first day of the offensive to battle damage and mechanical failure. Most of the damage was slight, but without spare parts at the front, von Lauchert could not keep more than a few dozen Panthers operational.

a dense minefield and had to wait while *Pioniere* removed the mines by hand. Podpolkovnik Ivan K. Kotenko's 1008th Anti-Tank Regiment was covering the road with 24 76.2mm ZIS-3 anti-tank guns, which struck the stationary mass of German armour from several angles. One Tiger was knocked out by anti-tank fire and two more immobilized by mines, but the LSSAH called down artillery and air strikes on Kotenko's guns, gradually silencing them. After a five-hour slugfest, the LSSAH assault troops breached the obstacle and overran the defenders, with several of Kotenko's gun crews fighting to the death. Surprisingly, the 151st Guards Rifle Regiment crumbled under the onslaught, which enabled the LSSAH spearhead to achieve a breakthrough and reach the vicinity of Bykovka by 1430hrs.

In Hausser's centre, the Das Reich Division attacked the village of Berezov with the SS-Panzergrenadier-Regiment Deutschland, but muddy ground conditions prevented the tanks from helping much. Waffen-SS *Pioniere* led the attack into Berezov with flamethrowers, which played a significant role in defeating the troops from the 155th Guards Rifle Regiment in the village. Yet it still took eight hours of close-quarter fighting before Berezov was secured; then Das Reich's Panzergrenadiers pushed north into the Zhuravlinyi Woods. By mid-afternoon, General-major Pavel P. Prokofevich, commander of the 23rd Guards Rifle Corps, was concerned that his front line was collapsing and he committed Polkovnik Dmitri A. Shcherbakov's 230th Tank Regiment to try to stop the advance of the LSSAH and Das Reich. Shcherbakov's US-built Grant tanks attacked without support and ran straight into the guns of Das Reich's Tigers, which shot them to pieces. Once the local Soviet armour reserve was eliminated, the LSSAH continued its advance up the main road, taking Bykovka by 1650hrs and reaching the second line of defence held by the 51st Guards Rifle Division. On the first day of *Zitadelle*, the LSSAH had advanced 9km – further than any other German division involved in the offensive. Das Reich achieved a respectable 6km advance.

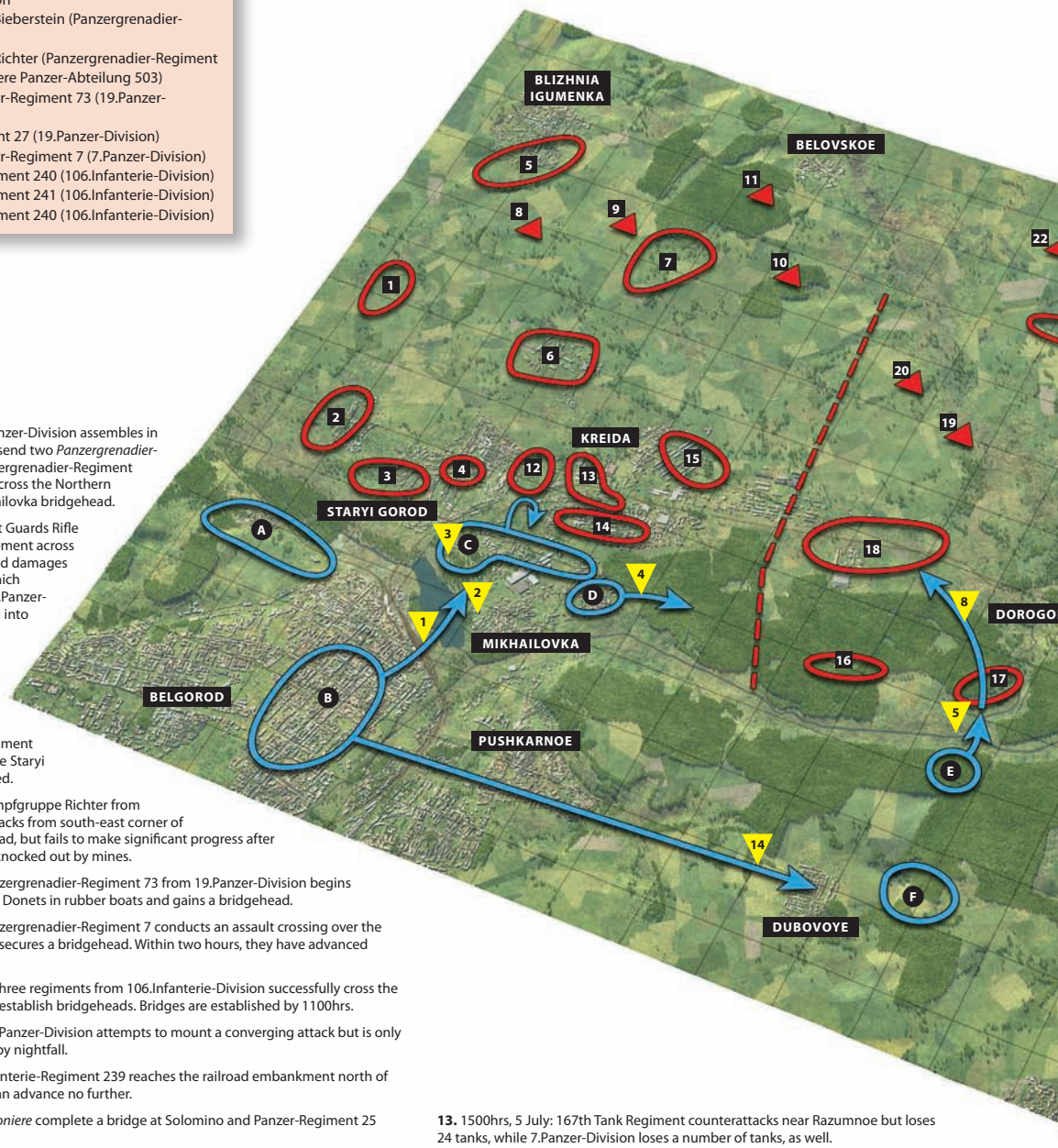


Hauptmann Hans-Ulrich Rudel in Sturzkampfgeschwader 2 pioneered the use of Ju-87 Stukas in the anti-tank role in early 1943, beginning in the Kuban and perfecting the technique by the battle of Kursk. A standard Ju-87 was equipped with two 3.7cm cannon, which enabled it to attack the thin armour on the engine deck of the T-34 tank. However, this tactic required great skill and only a few Luftwaffe pilots were capable of achieving real success and returning to base. (Author's collection)

GERMAN UNITS

- **A.** Infanterie-Regiment 417 (168.Infanterie-Division)
- **B.** 6.Panzer-Division
- **C.** Kampfgruppe Bieberstein (Panzergrenadier-Regiment 114)
- **D.** Kampfgruppe Richter (Panzergrenadier-Regiment 74 and 2./schwere Panzer-Abteilung 503)
- **E.** Panzergrenadier-Regiment 73 (19.Panzer-Division)
- **F.** Panzer-Regiment 27 (19.Panzer-Division)
- **G.** Panzergrenadier-Regiment 7 (7.Panzer-Division)
- **H.** Infanterie-Regiment 240 (106.Infanterie-Division)
- **I.** Infanterie-Regiment 241 (106.Infanterie-Division)
- **J.** Infanterie-Regiment 240 (106.Infanterie-Division)

Note: Gridlines are shown at intervals of 1km (0.62 miles)



EVENTS

1. Night 4/5 July: 6.Panzer-Division assembles in Belgorod and tries to send two *Panzergrenadier-Bataillonen* from Panzergrenadier-Regiment 114 and some tanks across the Northern Donets into the Mikhailovka bridgehead.

2. 0355hrs, 5 July: 81st Guards Rifle Division detects movement across the German bridge and damages it with artillery fire, which prevents tanks from 6.Panzer-Division from crossing into the bridgehead.

3. 0425hrs, 5 July: Kampfgruppe Bieberstein from Panzergrenadier-Regiment 114 and part of Infanterie-Regiment 417 attempt to capture Staryi Gorod, but are repulsed.

4. 0425hrs, 5 July: Kampfgruppe Richter from 19.Panzer-Division attacks from south-east corner of Mikhailovka bridgehead, but fails to make significant progress after most of its Tigers are knocked out by mines.

5. 0425hrs, 5 July: Panzergrenadier-Regiment 73 from 19.Panzer-Division begins crossing the Northern Donets in rubber boats and gains a bridgehead.

6. 0425hrs, 5 July: Panzergrenadier-Regiment 7 conducts an assault crossing over the Northern Donets and secures a bridgehead. Within two hours, they have advanced about 1km.

7. 0425hrs, 5 July: all three regiments from 106.Infanterie-Division successfully cross the Northern Donets and establish bridgeheads. Bridges are established by 1100hrs.

8. Morning, 5 July: 19.Panzer-Division attempts to mount a converging attack but is only able to advance 2km by nightfall.

9. 0800hrs, 5 July: Infanterie-Regiment 239 reaches the railroad embankment north of Maslova Pristan but can advance no further.

10. 0925hrs, 5 July: *Pioniere* complete a bridge at Solomino and Panzer-Regiment 25 begins to cross.

11. 1000hrs, 5 July: Infanterie-Regiment 240 spends most of the day in house-to-house fighting in Nizhniy Ol'shanets.

12. 1330hrs, 5 July: led by its tanks, 7.Panzer-Division breaks through the 225th Guards Rifle Regiment and advances 5km towards Krutoi Log.

13. 1500hrs, 5 July: 167th Tank Regiment counterattacks near Razumnoe but loses 24 tanks, while 7.Panzer-Division loses a number of tanks, as well.

14. 2000hrs, 5 July: 6.Panzer-Division shifts south to cross the Northern Donets in the 7.Panzer-Division sector.

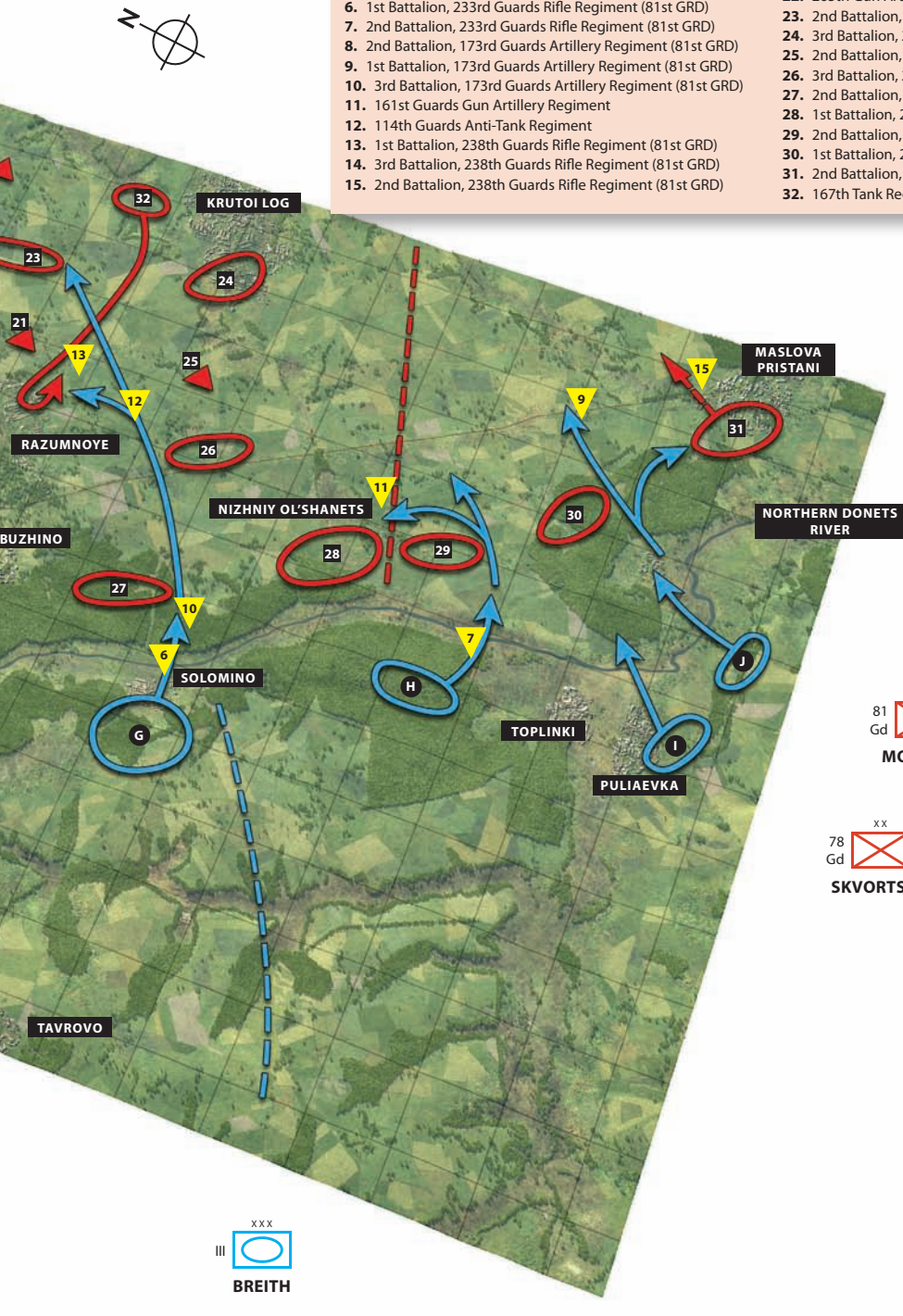
15. 2200hrs, 5 July: 229th Guards Rifle Regiment evacuates Maslova Pristan after it is nearly encircled.

THE ATTACK OF ARMEE-ABTEILUNG KEMPF ACROSS THE NORTHERN DONETS, 5 JULY 1943

Breith's III Panzerkorps and Raus' XI Armeekorps mounted a clumsy assault crossing of the Northern Donets south of Belgorod after an attempt to break out of the existing Mikhailovka bridgehead failed.

SOVIET UNITS

1. 262nd Tank Regiment
2. 2nd Battalion, 235th Guards Rifle Regiment (81st GRD)
3. 3rd Battalion, 235th Guards Rifle Regiment (81st GRD)
4. 1st Battalion, 235th Guards Rifle Regiment (81st GRD)
5. 3rd Battalion, 233rd Guards Rifle Regiment (81st GRD)
6. 1st Battalion, 233rd Guards Rifle Regiment (81st GRD)
7. 2nd Battalion, 233rd Guards Rifle Regiment (81st GRD)
8. 2nd Battalion, 173rd Guards Artillery Regiment (81st GRD)
9. 1st Battalion, 173rd Guards Artillery Regiment (81st GRD)
10. 3rd Battalion, 173rd Guards Artillery Regiment (81st GRD)
11. 161st Guards Gun Artillery Regiment
12. 114th Guards Anti-Tank Regiment
13. 1st Battalion, 238th Guards Rifle Regiment (81st GRD)
14. 3rd Battalion, 238th Guards Rifle Regiment (81st GRD)
15. 2nd Battalion, 238th Guards Rifle Regiment (81st GRD)
16. 1st Battalion, 228th Guards Rifle Regiment (78th GRD)
17. 3rd Battalion, 228th Guards Rifle Regiment (78th GRD)
18. 2nd Battalion, 228th Guards Rifle Regiment (78th GRD)
19. 290th Mortar Regiment
20. 3rd Battalion, 158th Guards Artillery Regiment (78th GRD)
21. 1st Battalion, 158th Guards Artillery Regiment (78th GRD)
22. 265th Gun Artillery Regiment
23. 2nd Battalion, 223rd Guards Rifle Regiment (78th GRD)
24. 3rd Battalion, 223rd Guards Rifle Regiment (78th GRD)
25. 2nd Battalion, 158th Guards Artillery Regiment (78th GRD)
26. 3rd Battalion, 225th Guards Rifle Regiment (78th GRD)
27. 2nd Battalion, 225th Guards Rifle Regiment (78th GRD)
28. 1st Battalion, 225th Guards Rifle Regiment (78th GRD)
29. 2nd Battalion, 229th Guards Rifle Regiment (72nd GRD)
30. 1st Battalion, 229th Guards Rifle Regiment (72nd GRD)
31. 2nd Battalion, 229th Guards Rifle Regiment (72nd GRD)
32. 167th Tank Regiment



xxx
25 Gd
SAFIULLIN

xx
81 Gd
MOROZOV

xx
72 Gd
LOSEV

xx
78 Gd
SKVORTSOV

xxx
III
BREITH

xxx
XI
RAUS

xx
7
VON FUNCK

xx
19
SCHMIDT

Soviet pilots trot to their La-5 fighters. The La-5 was one of the best VVS fighters in the summer of 1943, even though still slightly outclassed by the Bf-109G. Confusion in the VVS leadership about how best to use their fighters – as close escorts or in independent fighter sweeps – allowed the Jagdflieger to achieve a 6:1 or better kill ratio in most fighter battles during Kursk. (Courtesy of the Central Museum of the Armed Forces, Moscow via Stavka)

On Hausser's right flank, Totenkopf did not attack at once but waited for Das Reich to secure Berezov. In the afternoon, Totenkopf began to smash its way through the positions of the 375th Rifle Division, although mines immobilized five Tigers and anti-tank guns destroyed three StuG IIIs. Just after Totenkopf breached the main anti-tank ditch, Polkovnik Viktor G. Lebedev's 96th Tank Brigade launched a counterattack that slowed the German advance. Thanks to plentiful air support, Hausser's II SS-Panzerkorps succeeded in penetrating Chistiakov's first line of defence in the Berezov sector on the first day of *Zitadelle* – albeit on a very narrow front – which shocked the Soviet leadership. This advance cost II SS-Panzerkorps 1,081 casualties and 44 of its tanks and assault guns disabled, but the Soviet defenders suffered over 2,000 casualties in this sector.

Kempf was supposed to protect Hoth's right flank by attacking north-east from Belgorod, across the Northern Donets, but the terrain made a conventional attack problematic. Below Belgorod, the river averaged 500–600m across and had muddy banks. Kempf possessed a single bridgehead across the river, at Mikhailovka, which was held by a regiment from the 168.Infanterie-Division. Shumilov's 7th Guards Army had weighted its defence opposite the bridgehead, with two regiments from the 81st Guards Rifle Division and dug-in tanks from the 213th Tank Regiment. During the night of 4/5 July, General der Panzertruppe Hermann Breith moved 6.Panzer-Division through the northern side of Belgorod and sent two battalions of Panzergrenadiers into the Mikhailovka bridgehead in order to spearhead a breakout. However, the 81st Guards Rifle Division quickly detected the movement and shelled the single 24-ton bridge with BM-13 rockets; a lucky hit damaged the structure and prevented any tanks from crossing. Without tank support, the Panzergrenadiers from 6.Panzer-Division failed to gain any ground. Simultaneously, 19.Panzer-Division pushed one of its regiments into the Mikhailovka bridgehead, but also failed to advance. Breith's attempt to use the bridgehead as a springboard for attack was a failure and Shumilov's defences in this sector held. Adding insult to injury, 19.Panzer-Division lost 13 of its 14 Tigers to mines on the first day before they even fired a shot.

Yet in war, one cannot be strong everywhere and Shumilov had deployed fewer forces further south of Belgorod in the 78th Guards Rifle Division sector. At 0325hrs, 7.Panzer-Division sent one of its Panzergrenadier battalions across the Northern Donets in rubber boats and established a small bridgehead near Solomino. Although Soviet artillery pounded the bridgehead, German *Pioniere* were able to construct a pontoon bridge by 0830hrs and tanks began crossing the river. Once Tigers crossed into the bridgehead and led the attack, the 225th Guards Rifle Regiment began to give way and 7.Panzer-Division succeeded in advancing 5km by nightfall, despite a counterattack by the 167th

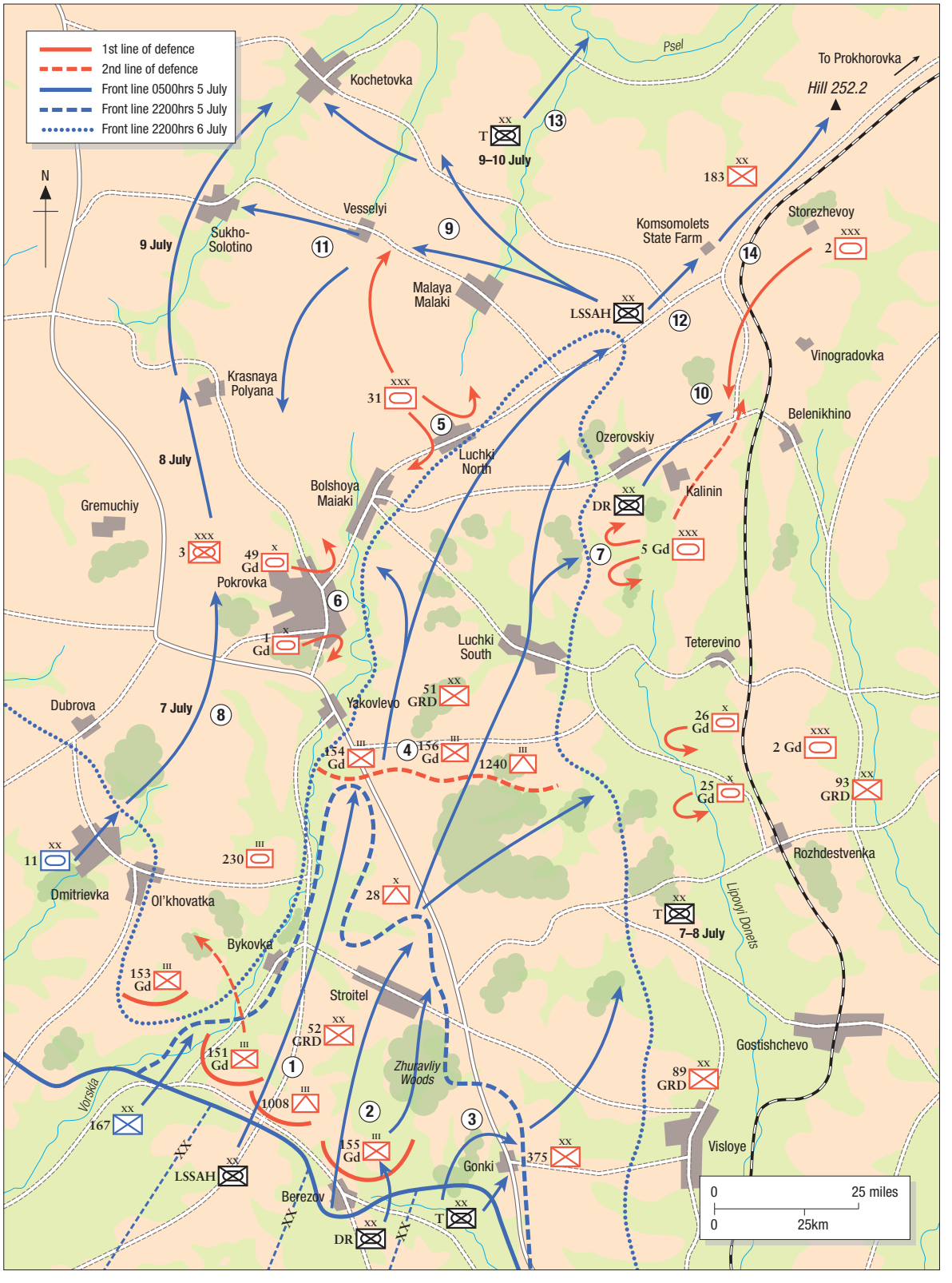
Tank Regiment. Breith's III Panzerkorps succeeded in denting part of Shumilov's first line of defence, but failed to achieve most of its first-day objectives and was in no position to protect Hausser's right flank – its primary mission. Indeed, there was a 7km-wide gap between Hausser's right flank and the left flank of Breith's III Panzerkorps before *Zitadelle* started and this gap would grow larger as Breith's forces advanced east by north-east.

By far the most costly German failure on the first day of *Zitadelle* was the supporting attack by Generaloberst Erhard Raus' XI Armeekorps across the Northern Donets with the 106.Infanterie-Division and 320.Infanterie-Division. Raus was supposed to help III Panzerkorps create a wider bridgehead across the river, but was only provided a few assault guns and no air support. Raus' infantry succeeded in crossing the river on a wide front before dawn and advanced over a kilometre to a railroad embankment before they encountered the main defensive positions of the 72nd Guards Rifle Division. On the left, 106.Infanterie-Division was stopped cold for most of the day and engaged in mopping up isolated Soviet positions. On the right, 320.Infanterie-Division was able to get across the railroad embankment and boldly sent Grenadier-Regiment 587 eastwards without assault guns, since Soviet artillery fire had knocked out the single pontoon bridge. Shumilov quickly counterattacked with the 27th Guards Tank Brigade and the 213th Rifle Division, which routed the unsupported German regiment. By late afternoon, it was apparent that the XI Armeekorps attack had been halted and both divisions suffered over 10 per cent losses. The attack in this sector was another indication of inadequate German planning for *Zitadelle*, which cost Raus 2,846 casualties. Shumilov's defence not only stopped Raus but inflicted a casualty ratio of more than 2:1 – a rarity on the Eastern Front.

In response to Hausser's breakthrough, Chistiakov committed his anti-tank reserves: 27th Anti-Tank Brigade to reinforce 71st Guards Rifle Division at Korovino, and 28th Anti-Tank Brigade to reinforce 52nd Guards Rifle Division, to block LSSAH's advance up the Tomarovka–Prokhorovka road. Vatutin, probably with Khrushchev at his elbow demanding to know why the Germans had penetrated Chistiakov's first echelon so quickly, decided to be proactive. At 1640hrs he ordered Katukov's entire 1st Tank Army and the two independent tank corps to launch a counterattack towards Tomarovka the next morning. Vatutin's decision was premature and excessive, committing Voronezh Front's entire mobile reserve before the enemy armour had been seriously depleted and when the front-line situation was unclear. In addition, Vatutin ordered Kriuchenkin's 69th Army to transfer two rifle divisions to reinforce Shumilov's 7th Guards Army and for Shumilov to counterattack the German bridgeheads over the Donets. Rather than sticking to the plan of letting the Germans wear themselves out before striking, Vatutin was

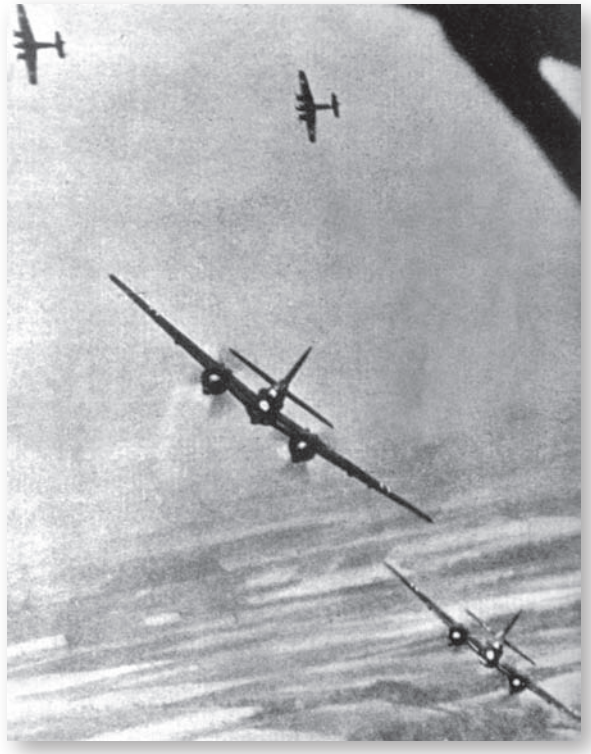
An Il-2 Sturmovik is shot down. Although the Il-2 had proved a tough target in the past for German fighters, at Kursk they fell in large numbers. Nevertheless, the Sturmoviks continued to harass German ground targets and Kursk was the first time where the Wehrmacht felt really threatened by Soviet airpower. (Author's collection)

Hausser's advance to Prokhorovka, 5–11 July 1943.



under pressure from Khrushchev and the Stavka to 'do something' sooner rather than later.

Altogether, von Manstein's forces suffered 6,334 casualties on 5 July in order to penetrate Vatutin's first line of defence in a few places. The Luftwaffe had done very well in the air battles and its effective close air support enabled Hausser's breakthrough, but could not prevent Soviet mines from disabling 154 German tanks and assault guns. Chistiakov's 6th Guards Army suffered 7 per cent losses but its second line of defence was intact and Katukov's armoured mass was within supporting range, while Shumilov's 7th Guards Army had done quite well in repelling most of Kempf's unsupported jabs. It was already apparent to both sides that *Zitadelle* was not simply going to bulldoze its way through Soviet defences as previous German offensives had, but instead a costly battle of attrition was just beginning.



A pair of German Hs-129 Bs begin their strafing run with their 3cm cannon against a ground target. Although the Hs-129 B had been in service for a year on the Eastern Front, it proved its worth in the close air support role at Kursk. Only 6 of Fliegerkorps VIII's 75 Hs-129 Bs were lost during *Zitadelle* and 10 were damaged by anti-aircraft fire. (Author's collection)

6 July

Having achieved several penetrations of Vatutin's first defensive belt, Hoth and Kempf spent the second day of *Zitadelle* trying to expand the scale of the breakthrough and push on to the second line of defence. On Hoth's left, von Knobelsdorff's XLVIII Panzerkorps attempted to reach the Pena River, but was concerned about its flanks as 332.Infanterie-Division was still tangled up around the village of Bubny. Westhoven had expected 332.Infanterie-Division to move up and secure his left flank from the Berezovyi Ravine to Krasny Pochinok, allowing him to concentrate all of 3.Panzer-Division for an advance to the Pena River – but this did not happen. Instead, Westhoven waited until 0900hrs and sent II./Panzer-Regiment 6 with 40 tanks in a reconnaissance in force to the Pena River, hoping to seize the bridge at Rakovo. All of the division's Panzergrenadiers were still dealing with the remaining 71st Guards Rifle Division positions north-west of Korovino, so the Panzers advanced

1. 5 July: after tough resistance from the 1008th Anti-Tank Regiment, LSSAH breaks through the centre of the 52nd Guards Rifle Division and captures Bykovka by 1650hrs.
2. 5 July: Das Reich captures Berezov and defeats a Soviet armoured counterattack.
3. 5 July: Totenkopf smashes through the 375th Rifle Division.
4. 6 July: LSSAH continues to advance to the north-east, overrunning a regiment of the 51st Guards Rifle Division. Hausser has broken through Chistiakov's second line of defence.
5. 6 July: the 31st Tank Corps fights a meeting engagement with LSSAH near Luchki North, but loses 110 tanks.
6. 7 July: the 31st Tank Corps and 3rd Mechanized Corps mount local counterattacks which keep LSSAH on the defensive all day.
7. 7 July: Das Reich advances east, pushing 5th Guards Tank Corps aside.
8. 7 July: 11.Panzer-Division advances from the west, rolling up the 3rd Mechanized Corps and forcing the Soviets to partly withdraw from the salient between II SS-Panzerkorps and XLVIII Panzerkorps.
9. 8 July: LSSAH pivots and attacks west to link up with XLVIII Panzerkorps. LSSAH fights a tank battle with 31st Tank Corps near Vesselyi.
10. 8 July: advancing eastwards on its own, Das Reich runs into the 2nd Tank Corps and elements of the 10th Tank Corps and 5th Guards Tank Corps, which force it onto the defensive with a series of poorly coordinated counterattacks.
11. 9 July: Hausser continues to attack westwards, mopping up around Pokrovka and Sukho-Solotino, which closes the gap with XLVIII Panzerkorps.
12. 10 July: LSSAH resumes the attack towards Prokhorovka and captures the Komsomolets State Farm.
13. 10 July: Totenkopf shifts to Hausser's left flank and crosses the Psel with infantry.
14. 11 July: LSSAH advances to capture Hill 252.2 on the outskirts of Prokhorovka.

without infantry or artillery support. Just as the Panzers entered the village of Zavydovka and caught sight of the bridge, they came under very heavy direct and indirect fire. General-major Andrei L. Getman's 6th Tank Corps from 1st Tank Army had reached Rakovo first and the T-34s of the 22nd Tank Brigade and anti-tank guns destroyed three German tanks and damaged about a dozen, while Soviet sappers blew up the bridge. After a brief gunnery duel, which exhausted the Panzers' ammunition, they withdrew. Westhoven judged the Pena was too heavily defended to cross with anything less than a full-scale assault and spent the rest of the day reorganizing his division.

Von Knobelsdorff was irked by Westhoven's lack of progress, but the situation was not much better with Großdeutschland and 11.Panzer-Division. Isolated units from the 67th Guards Rifle Division continued to resist around Cherkasskoye until 0830hrs and the German *Pioniere* had their hands full trying to clear mines and construct more bridges over the Berezovyi Ravine. By the time that both divisions were ready to advance, around 1000hrs, von Knobelsdorff knew that the Soviet 1st Tank Army had strong forces on the Pena River, so he decided to re-orient his advance eastwards to clear out the remaining Soviet first echelon positions south of the Pena River, in order to close up on Hausser's left flank. Meanwhile, Katukov had protested the order to counterattack south directly into the teeth of XLVIII Panzerkorps and recommended that his tanks would do better remaining in defensive positions behind the Pena. Normally, this kind of push-back was not allowed in the Red Army, but Katukov had a distinguished record and Stalin personally told Vatutin to hold off on the counterattack.

Around 1030hrs, Oberst Strachwitz led Großdeutschland's advance to the north-east, with 11.Panzer-Division advancing on his right flank. The 80

A German mixed armoured *Kampfgruppe* on the move. Note the SPW half-tracks in the lead, followed by a single Panzerjäger and a platoon of PzKpfw III medium tanks. A pair of Tigers are in the background. Due to the threat of mines and anti-tank guns, at Kursk the Panzergrenadiers often had to lead the way and tanks were only committed once gaps had been created in the enemy's defence. (Nik Cornish at www.Stavka.org.uk)

remaining Panthers missed the start of the attack and trailed the main body, uncertain of their mission. Just east of Cherkasskoye, near Hill 246, Strachwitz's Panzers unexpectedly ran into a dense minefield, covered by artillery and anti-tank fire. After losing a number of tanks, Strachwitz eventually bypassed the obstacle and continued north-east towards Dubrova, rolling up the 67th Guards Rifle Division. Surprisingly, there was a large gap between Chistiakov's first and second lines of defence, with few back-up positions immediately south of the Pena River. One of the long-standing rules of war is not to move across an alert enemy's front, but this is precisely what Strachwitz's Panzers did, moving 12km east through a void. Von Knobelsdorff wanted all his armour pushing in the same direction and ordered 3.Panzer-Division to send some tanks east to protect Großdeutschland's left flank. By 1500hrs, the XLVIII Panzerkorps was attacking towards Lukhanino and Dubrova with three armoured fists.

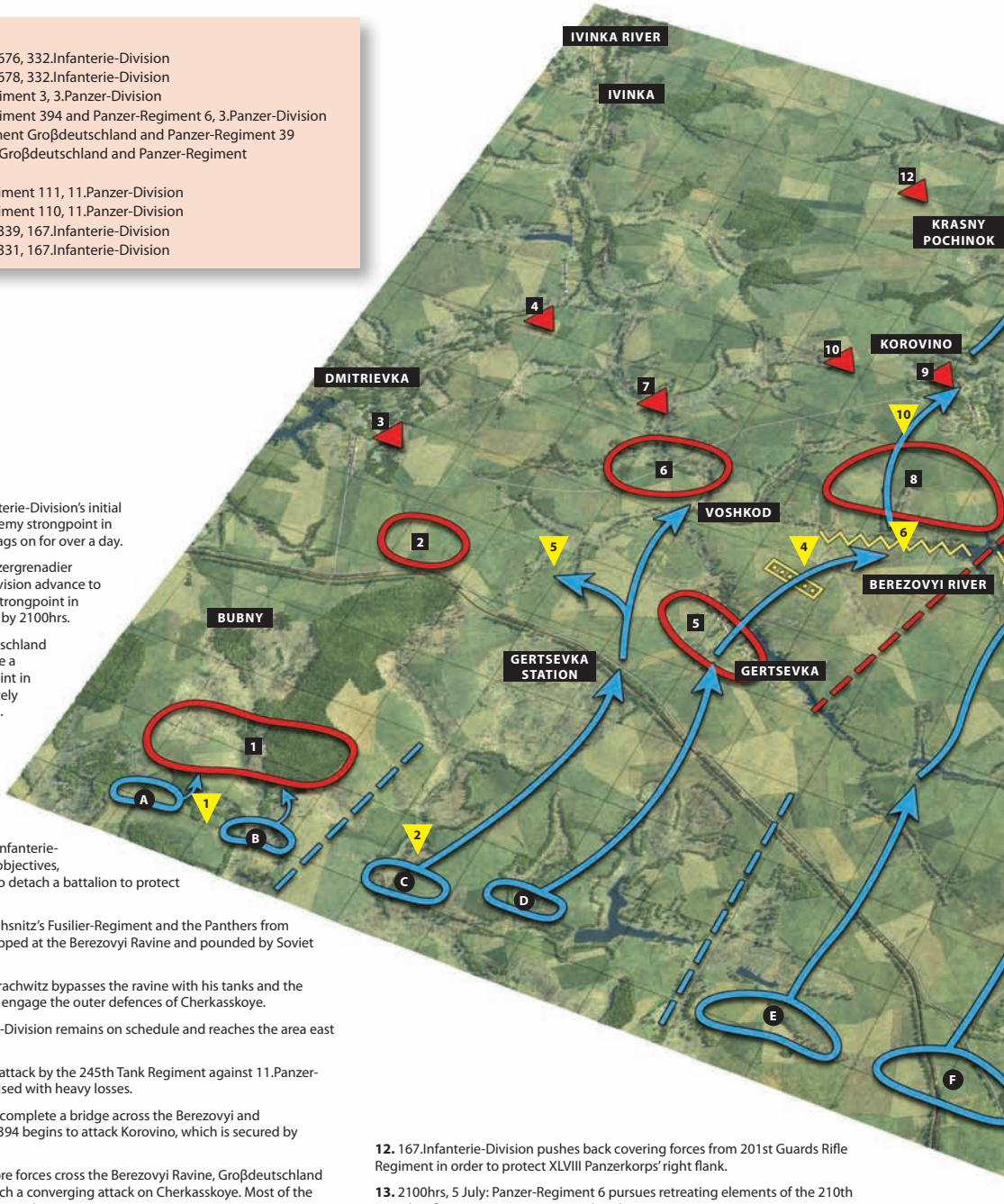
General-major Semen M. Krivoshein's 3rd Mechanized Corps established itself around the town of Lukhanino and its T-34s poured flanking fire into the Großdeutschland assault force. Just outside Dubrova, Strachwitz's Panzers and Major Remer's SPWs encountered another anti-tank ditch and minefield which halted the advance. Shortly thereafter, the inexperienced Panther battalions moved into the kill zone and suffered heavy losses; 19 Panthers were knocked out before the unit could disengage. The stalled German assault groups engaged in a long-range gunnery duel with dug-in T-34s, destroying some, but the XLVIII Panzerkorps attack failed to take Lukhanino or Dubrova. Von Knobelsdorff's corps suffered significant armour losses, with only 3 Tigers and 50 Panthers still operational. Yet the 67th Guards Rifle Division had been crippled and 6th Guards Army's first-echelon defences ruptured across a 20km-wide front. On the extreme right, 167.Infanterie-Division supported the advance of XLVIII Panzerkorps by attacking north-east, scooping up 320 retreating troops from the 67th Guards Rifle Division and capturing Ol'khovatka by nightfall. However, two regiments of the 52nd Guards Rifle Division still lay in the gap between XLVIII Panzerkorps and II SS-Panzerkorps.

Vatutin's prompt commitment of Katukov's 1st Tank Army prevented XLVIII Panzerkorps from overrunning Chistiakov's second line of defence on

The Panther Ausf. D belonging to Oberleutnant Köhler, commander of 1.Kompanie, Panzer-Abteilung 51, was disabled by a mine near Syrtsevo on 7 July 1943. Usually, the Soviet TM-series anti-tank mines tore off a track or damaged a road wheel, either of which was repairable within a few hours. However, this Panther has suffered a large explosion, which has evidently broken several torsion bars in the centre of the vehicle, as well as breaking track. This kind of damage would require extensive repairs, but since Panzer-Regiment 39 arrived without spare torsion bars, this tank was effectively destroyed. (Author's collection)

GERMAN UNITS

A. Grenadier Regiment 676, 332.Infanterie-Division
B. Grenadier Regiment 678, 332.Infanterie-Division
C. Panzergrenadier-Regiment 3, 3.Panzer-Division
D. Panzergrenadier-Regiment 394 and Panzer-Regiment 6, 3.Panzer-Division
E. Panzer-Füsilier-Regiment Großdeutschland and Panzer-Regiment 39
F. Grenadier-Regiment Großdeutschland and Panzer-Regiment Großdeutschland
G. Panzergrenadier Regiment 111, 11.Panzer-Division
H. Panzergrenadier Regiment 110, 11.Panzer-Division
I. Grenadier Regiment 339, 167.Infanterie-Division
J. Grenadier Regiment 331, 167.Infanterie-Division



EVENTS

1. 1700hrs, 4 July: 332.Infanterie-Division's initial attempt to eliminate the enemy strongpoint in Bubny fails and this fight drags on for over a day.

2. 1700hrs, 4 July: both Panzergrenadier regiments from 3.Panzer-Division advance to attack the Soviet battalion strongpoint in Gertsevka, which is secured by 2100hrs.

3. 1700hrs, 4 July: Großdeutschland and 11.Panzer-Division make a joint attack on the strongpoint in Butovo, but cannot completely secure the town by nightfall.

4. 0500hrs, 5 July: the main attack begins as 3.Panzer-Division advances to the Berezovyi Ravine, but it is delayed by mines and the muddy terrain.

5. Due to the failure of 332.Infanterie-Division to secure its initial objectives, 3.Panzer-Division is forced to detach a battalion to protect its open left flank.

6. 0800hrs, 5 July: Oberst Kahsnitz's Fusilier-Regiment and the Panthers from Panzer-Regiment 39 are stopped at the Berezovyi Ravine and pounded by Soviet artillery.

7. 1000hrs, 5 July: Oberst Strachwitz bypasses the ravine with his tanks and the grenadiers, who advance to engage the outer defences of Cherkasskoye.

8. 1200hrs, 5 July: 11.Panzer-Division remains on schedule and reaches the area east of Cherkasskoye.

9. 1300hrs, 5 July: a counterattack by the 245th Tank Regiment against 11.Panzer-Division's spearhead is repulsed with heavy losses.

10. 1650hrs, 5 July: *Pioniere* complete a bridge across the Berezovyi and Panzergrenadier-Regiment 394 begins to attack Korovino, which is secured by 2020hrs.

11. 1900hrs, 5 July: after more forces cross the Berezovyi Ravine, Großdeutschland and 11.Panzer-Division launch a converging attack on Cherkasskoye. Most of the town is in German hands by 2100hrs.

12. 167.Infanterie-Division pushes back covering forces from 201st Guards Rifle Regiment in order to protect XLVIII Panzerkorps' right flank.

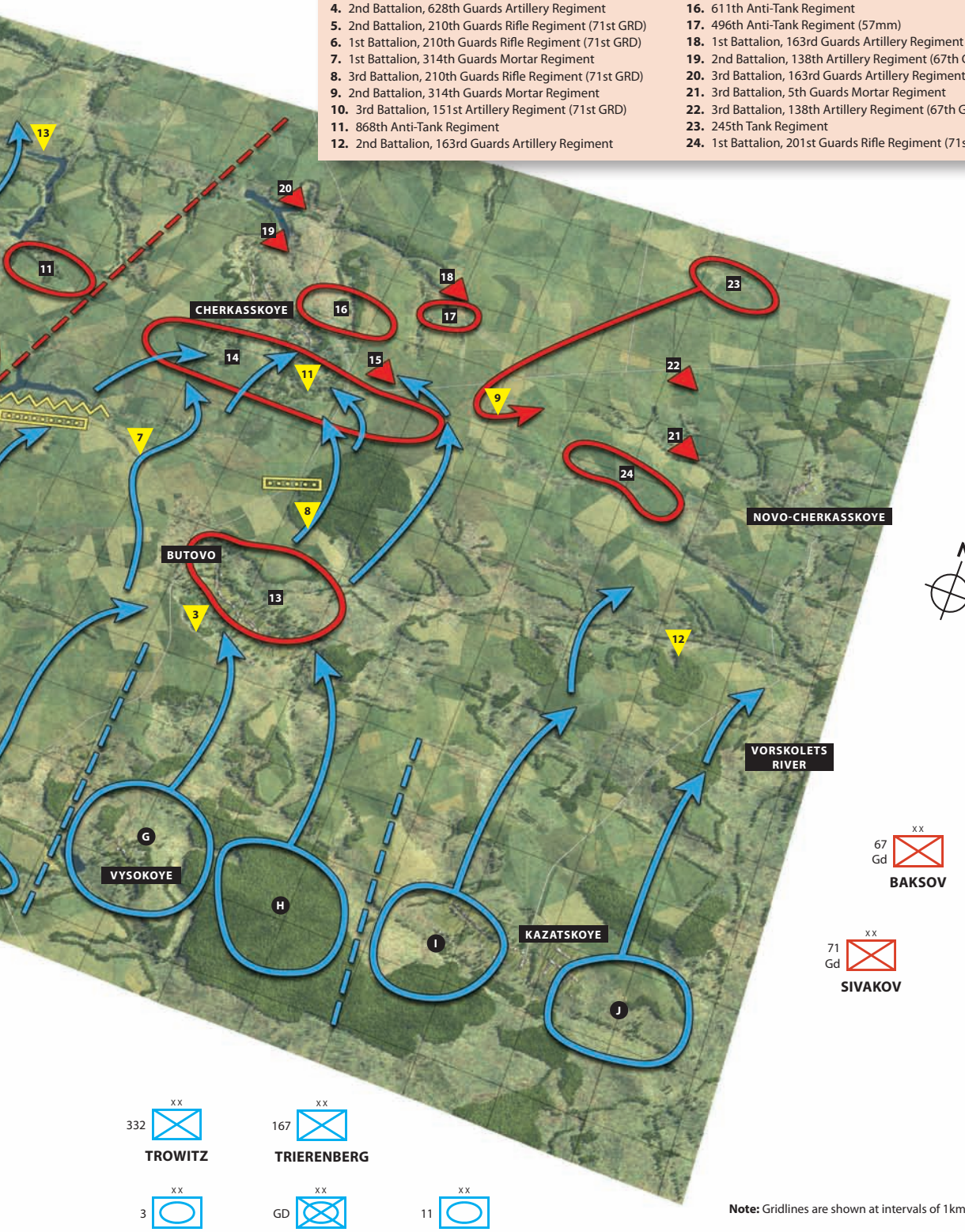
13. 2100hrs, 5 July: Panzer-Regiment 6 pursues retreating elements of the 210th Guards Rifle Regiment to Krasny Pochinok.

XLVIII PANZERKORPS' ATTACK ON CHERKASSKOYE, 4–6 JULY 1943

Von Knobelsdorff intended to quickly break through the 6th Guard Army's first line of defence near the boundary between the 67th and 71st Guards Rifle divisions, but mines and unexpected terrain obstacles upset the German timetable. Soviet resistance in the fortified town of Cherkasskoye was also much tougher than expected.

SOVIET UNITS

1. 2nd Battalion, 213th Guards Rifle Regiment (71st GRD)
2. 1st Battalion, 213th Guards Rifle Regiment (71st GRD)
3. 1st Battalion, 151st Artillery Regiment (71st GRD)
4. 2nd Battalion, 628th Guards Artillery Regiment
5. 2nd Battalion, 210th Guards Rifle Regiment (71st GRD)
6. 1st Battalion, 210th Guards Rifle Regiment (71st GRD)
7. 1st Battalion, 314th Guards Mortar Regiment
8. 3rd Battalion, 210th Guards Rifle Regiment (71st GRD)
9. 2nd Battalion, 314th Guards Mortar Regiment
10. 3rd Battalion, 151st Artillery Regiment (71st GRD)
11. 868th Anti-Tank Regiment
12. 2nd Battalion, 163rd Guards Artillery Regiment
13. 3rd Battalion, 199th Rifle Regiment and 73rd Guards Anti-Tank Battalion (67th GRD)
14. 196th Guards Rifle Regiment (67th GRD)
15. 2nd Battalion, 5th Guards Mortar Regiment
16. 611th Anti-Tank Regiment
17. 496th Anti-Tank Regiment (57mm)
18. 1st Battalion, 163rd Guards Artillery Regiment
19. 2nd Battalion, 138th Artillery Regiment (67th GRD)
20. 3rd Battalion, 163rd Guards Artillery Regiment
21. 3rd Battalion, 5th Guards Mortar Regiment
22. 3rd Battalion, 138th Artillery Regiment (67th GRD)
23. 245th Tank Regiment
24. 1st Battalion, 201st Guards Rifle Regiment (71st GRD)



Note: Gridlines are shown at intervals of 1km (0.62 miles)

the Pena River, but he was less successful in stopping Hausser's advance. General-major Dmitri Chernienko's 31st Tank Corps from 1st Tank Army, 2nd Guards Tank Corps and the 5th Guards Tank Corps were sent to reinforce the 51st Guards Rifle Division and 52nd Guards Rifle Division around Yakovlevo–Luchki, to prevent Hausser's II SS-Panzerkorps from pushing into 6th Guards Army's second echelon along the Tomarovka–Prokhorovka axis. Three fresh tank corps with over 400 tanks should have been enough to stabilize this section of the front, but each arrived and launched uncoordinated local counterattacks, rather than operating together. At 0730hrs, the LSSAH launched a full-scale assault with its Panzergrenadiers, supported by Stukas and Nebelwerfer, which gradually smashed a regiment of the 51st Guards Rifle Division in five hours of heavy fighting. Then the LSSAH committed its Panzer group at 1330hrs, overrunning the remnants of the 51st Guards Rifle Division and boldly pushing up the road to Prokhorovka. Soviet artillery fire was heavy and mines disabled many German vehicles, but the Waffen-SS advance was relentless. The 31st Tank Corps failed to seriously interfere with the LSSAH's advance, but General-leytenant Andrei G. Kravchenko's 5th Guards Tank Corps engaged LSSAH's armour head-on near Luchki. The open terrain in this area favoured the Tiger tank's long-range gunnery and Kravchenko's corps lost 110 tanks in a few hours, then retreated. The LSSAH's Panzers continued to advance until another large minefield knocked out multiple vehicles and it was clear that the division was strung out along a thin, 20km-long corridor with highly vulnerable flanks.

Das Reich and Totenkopf also continued to advance, albeit less dramatically. Das Reich's Tigers contributed to Kravchenko's defeat and also repulsed a smaller counterattack by the 2nd Guards Tank Corps. The day's fighting cost Hausser's corps 1,071 casualties and 79 armoured vehicles disabled, but Chistiakov's second line of defence had been penetrated and 51st Guards Rifle Division gutted. Yet it was not a clean breakthrough, since the Soviets had strong forces on both of Hausser's flanks and Hausser had no direct connection with the neighbouring German forces on either flank. Increasingly, Hausser was going to have to use his own resources to guard his flanks, until III and XLVIII Panzerkorps closed the gaps on either side.

Meanwhile, Armee-Abteilung Kempf struggled during the night of 5/6

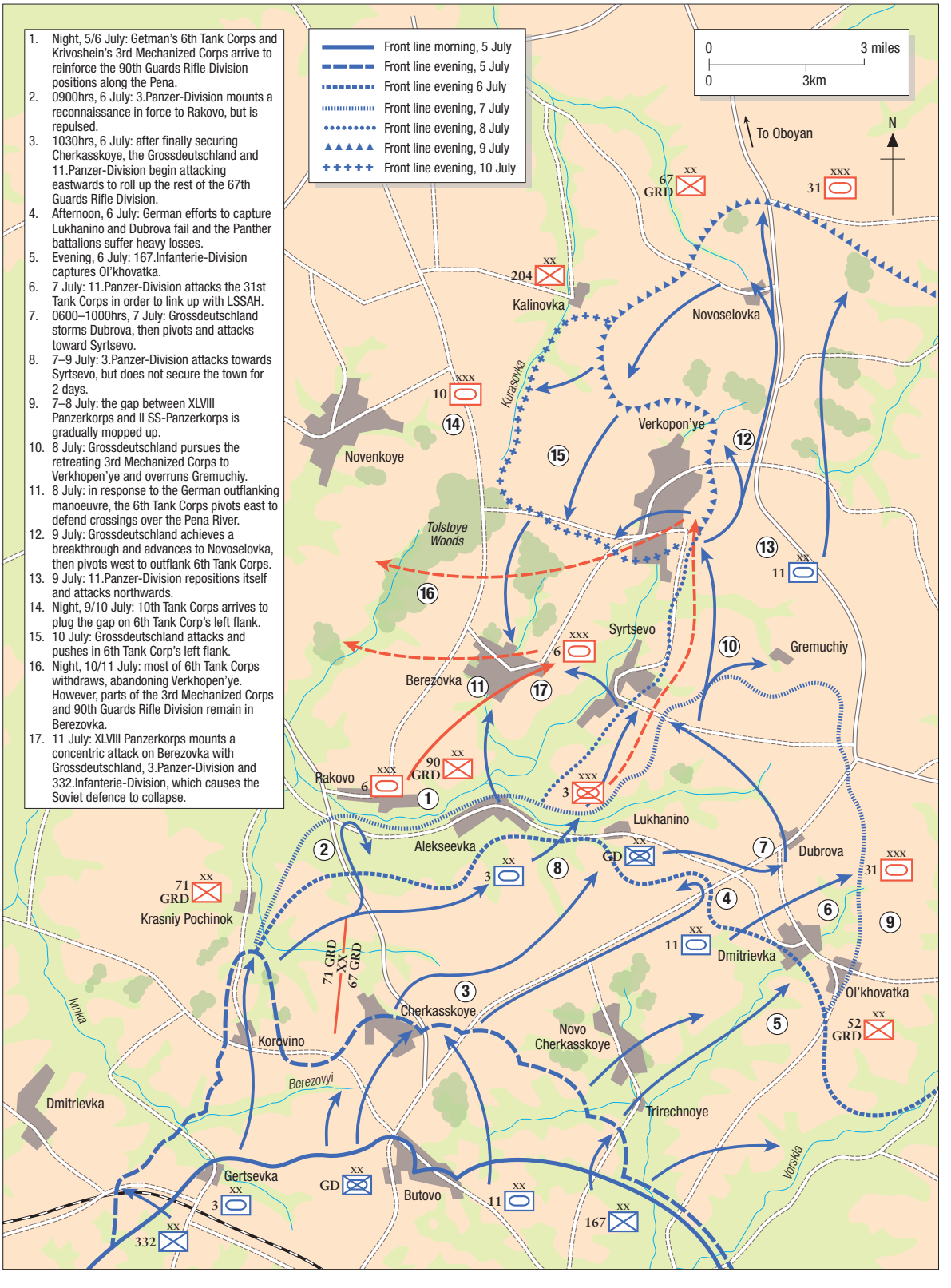
German *Pioniere* using electronic mine detectors to try and locate mines, while other men wait further back with wooden probes. Due to magnetic anomalies caused in the Kursk region by iron ore content in the soil, the German mine detectors did not function well during *Zitadelle* and most detection was done with old-fashioned probing methods. Clearing even short stretches of road could take hours. (Author's collection)

July to redeploy 6.Panzer-Division and 19.Panzer-Division into 7.Panzer-Division's bridgehead near Solomino. Generalleutnant Hans Freiherr von Funck's 7.Panzer-Division did not wait for reinforcements and attacked at dawn with his Panzers and Panzergrenadiers, gradually overwhelming the 78th Guards Rifle Division's forward infantry regiments. Shumilov tried to mass some of his tank regiments for a local counterattack in conjunction with the fresh 73rd Guards Rifle Division, but these shock groups were frittered away in local actions trying to stop von Funck's 7.Panzer-Division. The XI Armeekorps also attacked, with 106.Infanterie-Division on von Funck's right, helping to roll up the 78th Guards Rifle Division. By evening, von Funck had advanced 6km eastwards and penetrated Shumilov's first-echelon defences in this sector, but over 60 of his tanks had been disabled. Breith's other two *Panzer-Divisionen* entered the battle across the Northern Donets later in the afternoon and pushed 5–6km to the north-east, collapsing the 78th Guards Rifle Division's remaining positions and threatening to outflank the neighbouring 81st Guards Rifle Division. Although Breith's Panzers gained some elbow room across the Northern Donets and dented Shumilov's defences, they had fallen well behind schedule and were in no position to support Hausser's right flank.

While von Manstein's forces had succeeded in penetrating Vatutin's first line of defence in three sectors, the advancing German armoured spearheads all had exposed flanks that were vulnerable to counterattacks. Soviet mines and anti-tank guns had succeeded in disabling hundreds of German tanks and assault guns – 276 on 6 July alone – while overall Soviet tank losses were still fewer than those of the attackers. At this point, Zhukov's strategy was working: the German assault groups were being worn down by attrition and von Manstein could not sustain this effort for long. Already, von Manstein had been forced to thin out his forces in quiet sectors to sustain *Zitadelle*; in the LII Armeekorps sector opposite the Soviet 40th Army, 57.Infanterie-Division was obliged to hold a 40km-wide sector with only six infantry battalions. Patience and determination would win the battle for the Red Army, but Vatutin had already committed all of his local reserves and had begun ordering the 38th and 40th armies to transfer their uncommitted reserves to Chistiakov. At Front headquarters, Vatutin and Khrushchev fretted over each German advance and began to request that Stavka commit Konev's Steppe Front reserves sooner rather than later. For the time being,

Hoth's 4.Panzerarmee had three companies with a total of 35 PzKpfw III (F1) flamethrower tanks, which proved useful in clearing out some of the fortified Soviet towns in the first line of defence. The latest version of the Flammpanzer was based upon the PzKpfw III Ausf. M medium tank and could spray burning oil out to a range of 60m. Although no Flammpanzers were destroyed during *Zitadelle*, only 40 per cent were still operational after the battle. (Author's collection)

XLVIII Panzerkorps' fight on the Pena River, 6–11 July 1943.


1. Night, 5/6 July: Getman's 6th Tank Corps and Krivoshein's 3rd Mechanized Corps arrive to reinforce the 90th Guards Rifle Division positions along the Pena.
2. 0900hrs, 6 July: 3.Panzer-Division mounts a reconnaissance in force to Rakovo, but is repulsed.
3. 1030hrs, 6 July: after finally securing Cherkasskoye, the Grossdeutschland and 11.Panzer-Division begin attacking eastwards to roll up the rest of the 67th Guards Rifle Division.
4. Afternoon, 6 July: German efforts to capture Lukhanino and Dubrova fail and the Panther battalions suffer heavy losses.
5. Evening, 6 July: 167.Infanterie-Division captures Ol'khovatka.
6. 7 July: 11.Panzer-Division attacks the 31st Tank Corps in order to link up with LSSAH.
7. 0600–1000hrs, 7 July: Grossdeutschland storms Dubrova, then pivots and attacks toward Syrtsevo.
8. 7–9 July: 3.Panzer-Division attacks towards Syrtsevo, but does not secure the town for 2 days.
9. 7–8 July: the gap between XLVIII Panzerkorps and II SS-Panzerkorps is gradually mopped up.
10. 8 July: Grossdeutschland pursues the retreating 3rd Mechanized Corps to Verkhopen'ye and overruns Gremuchiy.
11. 8 July: in response to the German outflanking manoeuvre, the 6th Tank Corps pivots east to defend crossings over the Pena River.
12. 9 July: Grossdeutschland achieves a breakthrough and advances to Novoselovka, then pivots west to outflank 6th Tank Corps.
13. 9 July: 11.Panzer-Division repositions itself and attacks northwards.
14. Night, 9/10 July: 10th Tank Corps arrives to plug the gap on 6th Tank Corp's left flank.
15. 10 July: Grossdeutschland attacks and pushes in 6th Tank Corp's left flank.
16. Night, 10/11 July: most of 6th Tank Corps withdraws, abandoning Verkhopen'ye. However, parts of the 3rd Mechanized Corps and 90th Guards Rifle Division remain in Berezovka.
17. 11 July: XLVIII Panzerkorps mounts a concentric attack on Berezovka with Grossdeutschland, 3.Panzer-Division and 332.Infanterie-Division, which causes the Soviet defence to collapse.
Front line morning, 5 July
Front line evening, 5 July
Front line evening 6 July
Front line evening, 7 July
Front line evening, 8 July
Front line evening, 9 July
Front line evening, 10 July
0 3 miles
0 3km
To Oboyan
N
67 GRD
31
204
Kalinovka
Novoselovka
Kurasovka
10
14
Novenkoye
15
Verkopon'ye
12
Tolstoye Woods
13
11
16
Syrtsevo
6
Gremuchiy
10
Berezovka
11
17
Rakovo
6
90 GRD
1
3
Lukhanino
2
Alekseevka
3
8
GD
7
Dubrova
31
71 GRD
Krasniy Pochinok
4
6
9
11
Dmitrievka
71 GRD
67 GRD
Ol'khovatka
Ivnka
3
Cherkasskoye
Korovino
Novo Cherkasskoye
5
52 GRD
Berezovyi
Dmitrievka
Trirechnoye
Gertsevka
3
GD
Butovo
11
167
Vorskla
332

Stalin agreed to release the 10th Tank Corps from Konev's reserves and to transfer the 2nd Tank Corps from South-West Front, but not Rotmistrov's 5th Guards Tank Army or Zhadov's 5th Guards Army.

The air battle, 5–15 July

The fact that the opening week of *Zitadelle* witnessed some of the largest air battles to date in World War II – larger than any in the Battle of Britain – is often missed. The Luftwaffe proved better prepared for *Zitadelle* than the ground forces and Fliegerkorps VIII quickly established dominance over the 2nd VA and 17th VA from the outset. The veteran pilots of JG 3 and JG 52, including Leutnant Erich Hartmann in 7./JG 52, inflicted 4:1 or higher losses on their opponents in air superiority battles over the battlefield, then cut into the Il-2 Sturmoviks with a vengeance. In one week, Hartmann scored 17 kills: 12 fighters and 5 Sturmoviks. Fliegerkorps VIII was able to mount more sorties than its opponents and inflict much higher losses, which negated the Soviet numerical advantage. Yet Fliegerkorps VIII essentially ceded air superiority over the Northern Donets sector to 17th VA, in order to concentrate its strength over Hoth's armoured spearheads. In the first three days of the battle, the VVS lost 193 fighters over the southern sector, compared to only 17 German fighters – an amazingly lop-sided loss ratio.

Despite a great advantage in aerial combat, the air battles still proved painful for Fliegerkorps VIII. On 5 July, Hauptmann Günther Rall's III./JG 52 lost two high-scoring aces: Hauptmann Walter Krupinski (90 victories) was badly injured in a crash-landing and Feldwebel Wilhelm Hauswirth (54 victories) was shot down by enemy anti-aircraft. German industry could replace Bf-109s, but aces were harder to do so. The VVS concentrated most of its efforts on attacking German tank concentrations, with fighters usually serving as close escorts, but this only made it easier for Fliegerkorps VIII and German flak gunners to bag large numbers of kills each day. The VVS also attempted to use its bombers to attack German airfields and rail targets, but with very limited effect.

Waffen-SS Panzergrenadiers cautiously investigate a village, alert for signs of enemy activity. The Soviets had fortified most of the towns and villages in the 6th Guards Army and 7th Guards Army sectors and each had to be stormed in turn, which consumed a lot of time and effort. In contrast, in 1941 the Germans had found even cities like Orel barely defended. (Nik Cornish at www.Stavka.org.uk)

Table 5: Daytime air sorties and losses, 5–15 July 1943

Day	Fliegerkorps VIII day sorties	Fliegerkorps VIII day losses	2nd VA/17th VA day sorties	2nd VA/17th VA day losses
5 July	2,387	19	1,744	114/73
6 July	1,686	7	1,285	51/28
7 July	1,829	10	1,478	45/42
8 July	1,686	5	1,185	47/14
9 July	1,621	11	845	37/9
10 July	682	3	534	25/0
11 July	1,039	14	596	19/0
12 July	654	11	903	28/3
13 July	656	5	778	27/1
14 July	1,452	9	1,029	24/6
15 July	706	5	363	11/0
Total	14,398	99	10,740	428/176

Note: there are significant discrepancies between losses reported by Fliegerkorps VIII and Luftwaffe quartermasters.

By 8 July, 17th VA had been so badly hurt that two of its three air corps were stood down, leaving only the 1st Composite Air Corps (SAK) in action. However, Fliegerkorps VIII was ordered to transfer fighters and Stukas to support Model's 9.Armee, whose offensive had already bogged down. Seidemann dragged his feet on implementing this order, since Hoth appeared on the verge of a breakthrough, but this could not last. Stung by heavy losses, the VVS commanders also decided to allow their fighters to engage in more aggressive sweeps, rather than just escorting Sturmoviks. This shift in tactics paid off handsomely on the morning of 9 July when Soviet fighters ambushed a *Schwarm* of four Bf-109s from III./JG 52 and shot all of them down – an indication that the VVS was learning.

After 10 July, Fliegerkorps VIII was forced to significantly reduce sortie rates due to rainy, overcast weather and much-reduced fuel supplies. The VVS also reduced its sorties, mostly due to combat losses. Fliegerkorps VIII actually flew fewer sorties on 12 July – the day of the battle of Prokhorovka – than any day of *Zitadelle*. By 15 July, Seidemann was finally forced to transfer units north to support the defence of the Orel against the Soviet counter-offensive. Altogether, Fliegerkorps VIII did exceptionally well during the initial stages of *Zitadelle* and consistently inflicted 6:1 or higher loss ratios in fighter vs fighter battles, essentially forcing 2nd VA and 17th VA to reduce their own scale of effort in order to avoid further crippling losses. Overall, Fliegerkorps VIII lost 99–103 aircraft, including 33 fighters, 32–50 ground attack and 19–23 bombers. In contrast, 2nd VA and 17th VA suffered a total loss of over 600 aircraft, including at least 230 fighters, 300 Il-2 and 44 bombers. Yet, despite the Luftwaffe's tactical successes, it was not enough to tip the balance.

A Soviet infantry squad moves along a trench. Most of the field works created by Voronezh Front were quite simple, but lateral trench networks allowed the defenders to shift troops around while under artillery bombardment. (Author's collection)

Il-2 Sturmoviks flying to attack enemy targets. The 2nd VA and 17th VA formed an impressive force of over 500 Il-2 Sturmoviks to defeat the German offensive, but failed to adequately plan on how to protect them from enemy fighters. Almost 60 per cent of the Il-2s were lost in ten days of air combat. (Author's collection)

7 July

Hoth's priority on the third day of *Zitadelle* was to protect his flanks against Soviet counterattacks and to eliminate the gap between XLVIII Panzerkorps and II SS-Panzerkorps. Accordingly, von Knobelsdorff oriented most of his armour due eastwards to capture Lukhanino, Dubrova and Syrtsevo. Only 332.Infanterie-Division and part of 3.Panzer-Division were left to protect XLVIII Panzerkorps' left flank, from Gertsevka to Zavydovka.

Around 0600hrs, Großdeutschland's artillery bombarded Soviet defences around Dubrova and then attacked with both Panzers and Panzergrenadiers. Oberst Strachwitz's armoured group was reduced to just 30 operational medium tanks and 43 Panthers. Once again, Großdeutschland had to cross an anti-tank ditch under heavy fire, then breach a minefield on the other side. Krivoshein's 3rd Motorized Corps staged a counterattack near Dubrova, but Soviet resistance in the area was broken by 1000hrs. Strachwitz then pivoted north towards Syrtsevo, where his *Kampfgruppe* was halted by more mines and anti-tank guns, as well as T-34s from 6th Tank Corps. The Panther regiment was effectively *hors de combat* near Syrtsevo, when 27 Panthers were lost by early afternoon. South-east of Dubrova, 11.Panzer-Division attacked into the flank of the 31st Tank Corps and closed the gap with Hausser's II SS-Panzerkorps, but 46 of its tanks were disabled. The 3.Panzer-Division was not able to attack until 1430hrs, but eventually cleared 67th Guards Rifle Division elements from Lukhanino. By the end of the day, XLVIII Panzerkorps had closed on the Pena River but was reluctant to attempt a crossing with Katukov's tanks on the far side. Although the Pena River was just 10m wide in places, it had higher ground on the Soviet side and the banks were waterlogged; the difficulty caused in crossing the equally minor Berezovyi Ravine probably discouraged von Knobelsdorff from trying to conduct a direct assault crossing. It would take four to five hours to construct a pontoon bridge under fire, which would be a long time for the initial wave of Panzergrenadiers to hold off Katukov's tanks within their own armour support. Instead, von Knobelsdorff opted to continue pushing north-east, around the Pena, in order to protect Hausser's left flank from Katukov's 1st Tank Army.

Hausser intended to continue pushing through Chistiakov's second line of defence towards Prokhorovka, but spent most of 7 July fending off Soviet counterattacks. Both the 31st Tank Corps and 3rd Motorized Corps conducted brigade-size armoured counterattacks against LSSAH's left flank, which reduced the forces available to participate at the *Schwerpunkt*. Das

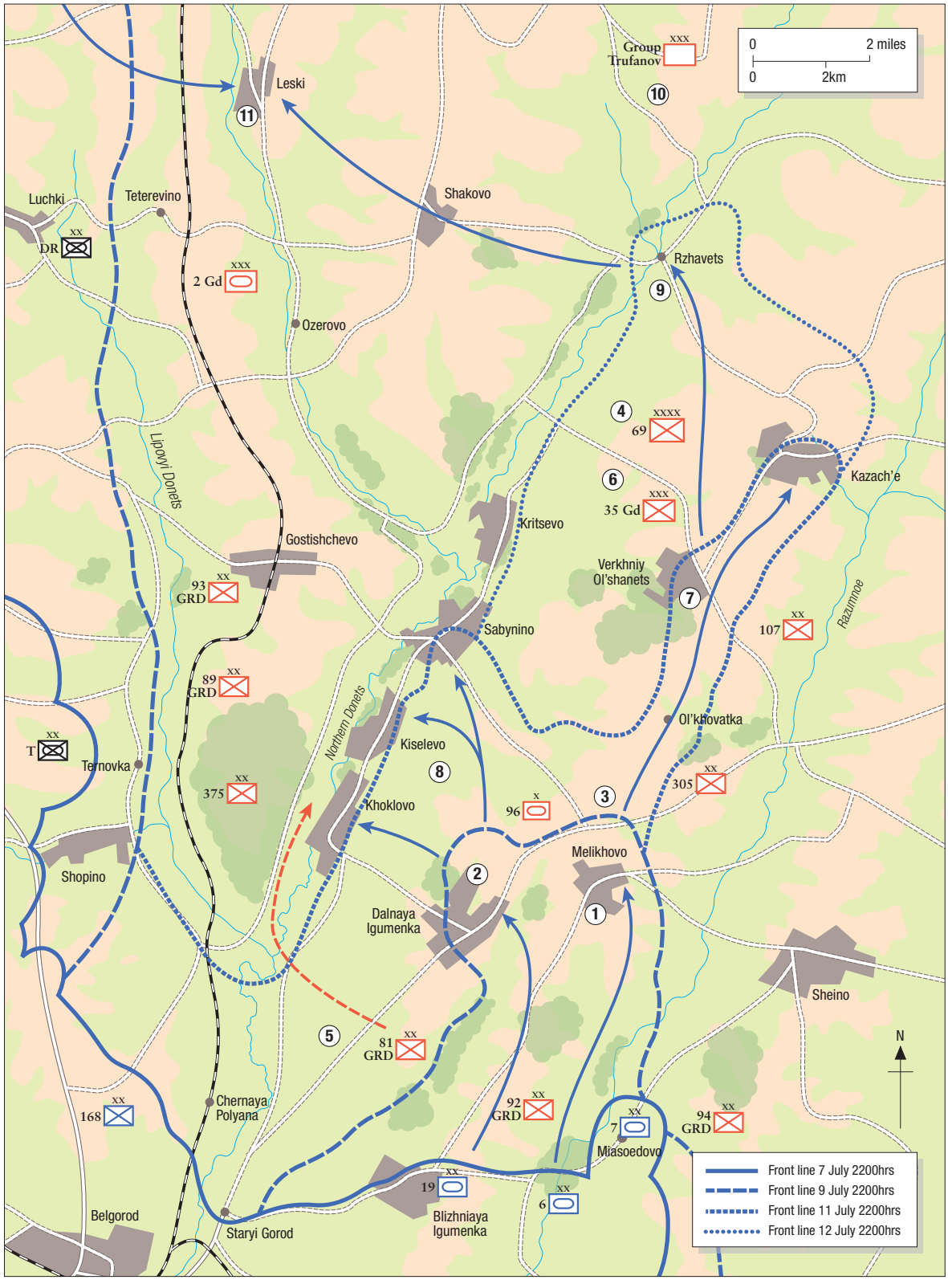
A German column has come under enemy air attack and a truck has exploded. The vehicle in the foreground is a Panzerbeobachtungswagen III, a variant of the PzKpfw III used by artillery forward observers attached to Panzer units. Movement along roads like this tended to attract enemy air and artillery attacks. (Nik Cornish at www.Stavka.org.uk)

Reich also continued to advance to the north-east, pushing the 5th Guards Tank Corps aside. However, Totenkopf was forced to shift to the defence for the entire day, since Breith's III Panzerkorps was not guarding the flank as intended.

Chistiakov's losses in 6th Guards Army were also quite heavy, particularly in General-major Pavel P. Prokofevich's 23rd Guards Rifle Corps, which had been torn to pieces by Hausser's advance; the battered 52nd Guards Rifle Division had already withdrawn from the battle. Indeed, there was very little Soviet infantry left along the Tomarovka–Prokhorovka axis, except for the intact 183rd Rifle Division from Kriuchenkin's 69th Army. Vatutin had made a crucial mistake in committing his reserves by sending the entire 35th Guards Rifle Corps and two rifle divisions from Kriuchenkin's 69th Army to reinforce Shumilov's 7th Guards Army, which was under much less pressure. The 69th Army – which was supposed to hold the third line of defence at Prokhorovka – had been gutted and Vatutin failed to recognize that the 23rd Guards Rifle Corps could no longer hold. Vatutin's mistake was caused by a breakdown in Soviet communications as unit command posts were overrun or retreated without orders. Soviet commanders were heavily dependent upon wire communications and reluctant to use tactical radios since they were apprehensive about German radio intercept capabilities. Without effective communication with their front-line units, it was difficult for Vatutin and Chistiakov to assess the battlefield situation and the fog of war had become quite thick, distorting their perception. Hoth was also uncertain about the condition of the Soviet front and their committed reserves, but simply told von Knobelsdorff and Hausser to keep pushing towards their objectives. The failure of Soviet planning to anticipate communication breakdowns would play a crucial role in Vatutin's ability to respond to Hoth's armoured jabs.

1. 8 July: 6.Panzer-Division captures Melikhovo from the 92nd Guards Rifle Division.
2. 9 July: 19.Panzer-Division attacks west and isolates the 81st Guards Rifle Division in Staryi Gorod.
3. 9 July: 6.Panzer-Division attacks north against the 305th Rifle Division.
4. 9–10 July: 69th Army is assigned to stop Breith's III Panzerkorps and immediately launches counterattacks, which force Breith onto the defensive.
5. 10 July: 81st Guards Rifle Division slips out of encirclement, but this weakens the Soviet defence north of Belgorod.
6. Night, 10/11 July: 35th Guards Rifle Corps conducts a relief-in-place north of Melikhovo.
7. 11 July: III Panzerkorps attacks the 35th Guards Rifle Corps and shatters it. The 6.Panzer-Division and attached Tigers overrun the 305th Rifle Division at Ol'khovatka. It continues on to capture Verkhniy Ol'shanets and Kazach'e by nightfall.
8. 11 July: 19.Panzer-Division launches a supporting attack against the 89th Guards Rifle Division that captures Khoklovo and Kiselevo. The 35th Guards Rifle Corps retreats west across the Northern Donets.
9. 12 July: a pre-dawn raid by 6.Panzer-Division captures an intact bridge over the Northern Donets at Rzhavets.
10. 12–15 July: Group Trufanov tries in vain to stop III Panzerkorps from pushing west across the Northern Donets from the Rzhavets bridgehead.
11. 15 July: the pincers from III Panzerkorps and II SS-Panzerkorps close at Leski, but the Soviet 48th Rifle Corps has escaped.

Breith's offensive, 8–12 July 1943.



In the south, Breith's III Panzerkorps continued to attack to the north-east, with all three *Panzer-Divisionen* fighting through the 81st Guards Rifle Division, but Shumilov committed the fresh 92nd Guards Rifle Division and 94th Guards Rifle Division from 35th Guards Rifle Corps. Although von Funck's 7. Panzer-Division advanced 6km, there was still a 15km-wide gap between Hausser's right flank and Breith's Panzers. Raus' XI Armeekorps, which had virtually no armour or air support, only made minor attacks. Shumilov had hoped to launch a major counterattack to stop Breith, but decided to remain on the defensive and use the two fresh divisions from 69th Army to form a new defensive line behind the Koren River.

By the end of 7 July, *Zitadelle* was noticeably slowing in every sector except that of Hausser's II SS-Panzerkorps, which was holding a salient that was 8km wide and 14km long. Von Manstein's forces had suffered over 14,000 casualties and one-third of their armour was disabled. Vatutin's losses were even heavier – 29,000 casualties – but his armour had suffered less since they were not ploughing through minefields and anti-tank zones. Although Vatutin's second line of defence had been demolished in front of Hausser, Hoth was conservative and decided to remove the gap between XLVIII Panzerkorps and II SS-Panzerkorps before resuming the advance northwards; this pause would also give Breith time to catch up on Hausser's right flank. From Vatutin's perspective, he was desperate to mount a major armoured counterattack with Katukov's 1st Tank Army and the independent tank corps, before the Germans pushed up the poorly defended axis to Prokhorovka. He knew that Konev's reserves were beginning to move towards Prokhorovka and would arrive within several days, so he wanted to attack in order to keep Hoth off balance. At 2300hrs, Vatutin informed Katukov that the counterattack would begin at 1030hrs the next morning and would receive substantial air and artillery support.

A Waffen-SS unit assembling in a Russian village. On the morning of 12 July, the men of both the LSSAH and Das Reich were much like this, preparing to renew the offensive but not expecting a major Soviet armoured counterattack. After a week of intense combat, units were slowing down the operations tempo in an effort to let the troops get some food and rest before the next big push. (Nik Cornish at www.Stavka.org.uk)

8 July

Von Knobelsdorff's XLVIII Panzerkorps began the day with 3.Panzer-Division using its position in Lukhanino to mount a combined-arms attack due north towards Syrtsevo, while Großdeutschland and 11.Panzer-Division joined in later from Dubrova. Krivoshein had his entire 3rd Motorized Corps

The Germans rarely used the *Panzerkeil* (tank wedge) at Kursk and most *Kampfgruppen* moved in loose formations. Note the mix of two Tigers, PzKpfw III Ausf. M and PzKpfw IV Ausf. G and SPWs in the same formation. The terrain has a gentle roll, which means that it is possible to conceal significant armoured formations – or anti-tank guns – in the folds of the earth. (Nik Cornish at www.Stavka.org.uk)

dug in behind a small stream and his artillery and anti-tank guns poured a heavy fire onto the approaching Germans. Strachwitz's *Panzergruppe* advanced with 40 tanks, including the 20 remaining Panthers. More tanks were disabled by mines and anti-tank fire, but Strachwitz overran the 3rd Mechanized Brigade north of Dubrova and forced Krivoshein to withdraw north to Verkhopen'ye. Strachwitz advanced at the tip of the spear, with both Panzergrenadier regiments following and 11.Panzer-Division on his right. This mass of armoured vehicles and men captured the village of Gremuchiy and then, with the bit between their teeth, fought their way to the edge of Syrtsevo by 1350hrs. There were fewer mines in this area and the terrain was fairly flat, which enabled the Panzers to finally operate with some freedom.

While the Fusilier-Regiment fought its way into Syrtsevo, Strachwitz decided to push on while Krivoshein was retreating. Advancing 4km, Strachwitz's Panzers moved to high ground just south of Verkhopen'ye around 1500hrs, hoping to seize a crossing over the Pena. However, Getman's 6th Tank Corps had pivoted east in anticipation of Vatutin's counter-offensive and controlled the far bank. Strachwitz's Panzers engaged in a long-range gunnery duel with Getman's tanks, with both sides suffering losses. Furthermore, Soviet infantry was still holding out in Syrtsevo and artillery from across the Pena poured a galling enfilade fire into Großdeutschland's exposed left flank. While XLVIII Panzerkorps had clearly broken through Chistiakov's second line of defence, the line behind the Pena was still intact and von Knobelsdorff's advance left him holding another salient; the Germans enjoyed tactical success, but were falling short of their operational objectives.

While 167.Infanterie-Division attacked from the west to mop up 51st Guards Rifle Division positions near Pokrovka, the LSSAH attacked westwards to assist. However, Hausser only assigned small forces to this mopping-up effort and he made his main attack at 0800hrs further north from Malye Mayachki, where SS-Panzer-Regiment 1 advanced across flat, open terrain toward the village of Vesselyi. Chernienko's 31st Tank Corps had arrived near Vesselyi to participate in Vatutin's counter-offensive and was reinforced by the 192nd Tank Brigade from 38th Army. Chernienko's tanks attacked east, while LSSAH's Panzers attacked west, resulting in a fierce meeting engagement. By the afternoon, the 31st Tank Corps retreated after losing 58 tanks, but the LSSAH also lost a number of tanks, including 2 Tigers immobilized.

As LSSAH focused westwards, Das Reich made small attacks on the east side of the salient and Totenkopf defended a 14km-wide sector on the corps' right flank. However, Hausser recognized that Soviet defences on the Prokhorovka axis were weak and at 0800hrs he attacked from Teterevino with an armoured *Kampfgruppe* from Das Reich. Two hours later, this *Kampfgruppe* spotted a mass of Soviet armour approaching from the north-east – it was General-leytenant Vasily G. Burkov's 10th Tank Corps, arriving from Steppe Front reserves. Not far behind was General-major Aleksei F. Popov's 2nd Tank Corps, transferred from South-West Front. In addition, Kravchenko's 5th Guards Tank Corps and Burdeiny's 2nd Guards Tank Corps were both still on Das Reich's eastern flank and Vatutin hoped to mount a coordinated attack with these four tank corps, but too little time was available for planning and the result was a series of uncoordinated, brigade-size attacks. The weather was warm, 21°C (70°F), and overcast, with dust and smoke obscuring long-range visibility.

Burkov began attacking at 1125hrs and kept attacking until 1800hrs, resulting in an extended tank battle. Although Burkov's 10th Tank Corps suffered heavy losses, particularly from Das Reich's Tigers, it did force the Waffen-SS to abandon Teterevino when they ran low on anti-tank ammunition. Popov's 2nd Tank Corps was supposed to attack in conjunction with Burkov, but through a number of errors the 2nd Tank Corps's attack started late and quickly fell apart. Further south, Kravchenko's veteran 5th Guards Tank Corps began at 1130hrs with an artillery preparation and Il-2 Sturmovik sorties, which enabled his tanks to overrun some of SS-Panzergrenadier-Regiment Deutschland's positions. After some tense moments, Kravchenko's attack was repulsed by SS-Panzerjägers, who knocked out 31 of his tanks. Burdeiny's 2nd Guards Tank Corps attacked Das Reich's right flank, but Fliegerkorps VIII sent the Hs-129 B tank-busters of Schlachtgeschwader 1 to break up the enemy armour; this was the first massed use of anti-tank aircraft and the first time that airpower broke up an enemy armoured assault. Nevertheless, marauding Soviet tanks kept infiltrating Hausser's thinly held front all day and in one local action, the commander of Totenkopf's Panzer-Regiment was killed in an ambush.

A Tiger tank in the advance across a wide expanse of Steppe grass. Off to the left, a mine has detonated. The Tigers at Kursk were typically used in platoon-size detachments of only a few tanks, since battle damage and mechanical problems quickly whittled down the companies attached to the assaulting divisions. (Nik Cornish at www.Stavka.org.uk)

In material terms, Vatutin's armoured counterstroke on 8 July was a failure since it cost him over 100 of the 500 tanks involved and inflicted only light losses on Hausser's II S-Panzerkorps. However, the sudden appearance of so much Soviet armour made Hoth more apprehensive about his flanks and increased his desire to eliminate the remnants of 6th Guards Army between XLVIII Panzerkorps and II SS-Panzerkorps before pushing on to Prokhorovka. Moskalenko's 40th Army also made some attacks against LII Armeekorps which threatened to retake Gertsevka on the left. By now, it was obvious to Hoth that Armee-Abteilung Kempf would not be able to assist his advance and that 4.Panzerarmee would have to protect its own flanks. Hoth's conservatism gave Vatutin the respite on his weakest sector at a critical moment and enabled Konev's reserves to reach Prokhorovka before Hausser.

Despite falling well behind schedule, Breith's III.Panzerkorps continued grinding its way northwards through Shumilov's 7th Guards Army. German *Pioniere* were obliged to build a 24-ton pontoon bridge over the 10m-wide Razumnaya River in order to continue the attack. While 7.Panzer-Division and XI Armeekorps protected the eastern flank, 6.Panzer-Division attacked and captured the town of Melikhovo from the 92nd Guards Rifle Division after a hard fight. At a cost of a further 1,000 casualties and 20 tanks, Breith had advanced 5km. However, Kempf could now only attack with two of his six committed divisions, while the rest watched his flanks. In contrast, Shumilov's 7th Guards Army still had several fresh rifle divisions in reserve.

9 July

Von Knobelsdorff decided to start the day by mopping up his sector, so he assigned 3.Panzer-Division to secure Syrtsevo while Großdeutschland focused all its effort on capturing Verkhopen'ye. Westhoven's 3.Panzer-Division did not press the attack hard and failed to secure all of Syrtsevo and Großdeutschland's initial attacks on Verkhopen'ye stalled. In order to avoid heavy casualties in house-to-house fighting, Hörnlein substituted firepower for manoeuvre, using artillery fire, 2cm anti-aircraft guns and Stuka bombardment to reduce Verkhopen'ye to shattered rubble. While the fight for this town was still on-going, Strachwitz manoeuvred his *Panzergruppe* around to the north. An opportune Stuka attack destroyed some nearby tanks from Krivoshein's 3rd Motorized Corps, which precipitated a Soviet withdrawal. Hörnlein ordered Strachwitz to pursue Krivoshein, which resulted in a Soviet collapse north of Verkhopen'ye. One Soviet anti-tank unit, apparently equipped with 85mm anti-aircraft guns, completely destroyed two pursuing German tanks but Strachwitz pushed forwards, engaging in a tank battle with Krivoshein's fleeing tanks and capturing the fortified village of Novoselovka. By 1400hrs, Strachwitz had advanced 10km, piercing 1st Tank Army's front, and was within 22km of Oboyan. Strachwitz's advance was a considerable tactical accomplishment, but his Panzer-Regiment was reduced to just 36 of his original 318 tanks, including 3 Tigers and 16 Panthers. Katukov's 1st Tank Army had also taken a severe beating, but still had 200 T-34s blocking the road to Oboyan.

While Soviet infantry held the wreckage of Verkhopen'ye, von Knobelsdorff was placed on the horns of a dilemma: to exploit Strachwitz's success and push north towards Oboyan, or exploit the gap between 3rd Motorized Corps and Getman's troublesome 6th Tank Corps on his left flank. At 1450hrs, von Knobelsdorff directed Großdeutschland to turn west

and envelop 6th Tank Corps' vulnerable left flank. The 11.Panzer-Division, which was attacking north-east towards the LSSAH, was ordered to take over Großdeutschland's front so Hörnlein could focus all his combat power westwards. However, after attacking for five days, fatigue was becoming a factor, and one which delayed the attack until the next day. Around 1600hrs, the lead brigades of Burkov's 10th Tank Corps began arriving to fill the gap between 6th Tank Corps and 3rd Motorized Corps. Vatutin had made the momentous decision earlier in the day to shift the 10th Tank Corps from Prokhorovka to reinforce Katukov's 1st Tank Army.

Hausser continued to direct most of his effort westwards on 9 July. Due to the mopping-up operation around Pokrovka on the previous day, Hoth was able to transfer 167.Infanterie-Division from XLVIII Panzerkorps to take over Totenkopf's section of the front on Hausser's right flank. By 0500hrs, Totenkopf shifted most of its forces to the north side of the salient while Das Reich guarded the eastern side. Despite the loss of its Panzer-Regiment commander, Totenkopf still had 122 operational tanks, including 6 Tigers. Around 1000hrs, Totenkopf began attacking west in conjunction with LSSAH. Kravchenko's battered 31st Tank Corps and the remnants of 51st Guards Rifle Division resisted as long as they could, losing about 60 tanks and many anti-tank guns, but were forced to abandon Sukho-Solotino. Just before noon, Totenkopf's Panzers linked up with 11.Panzer-Division, removing the gap between XLVIII Panzerkorps and II SS-Panzerkorps. During the evening, Totenkopf's reconnaissance units identified that Soviet defences on the Prokhorovka axis were not as strong as expected.

A brief window of opportunity existed for Hoth to capture Prokhorovka before the Stavka reserves reached the battlefield. Rotmistrov's 5th Guards Tank Army was just completing an impressive 400km road march on its own tracks and was assembling 15km north of Prokhorovka. Although 31 per cent of Rotmistrov's 721 armoured vehicles broke down en route, Soviet repair units were able to restore half within the next 36 hours. General-leytenant Aleksei S. Zhadov's 5th Guards Army was also approaching, with orders to deploy his six divisions behind the Psel. Fliegerkorps VIII utterly failed to detect this massive movement, even though much of it occurred in daylight. As further insurance, Stavka also sent the 27th Army to reinforce the defences around Kursk and the 53rd Army to prepare defences north of Prokhorovka. Thus, Vatutin was receiving 100,000 fresh troops to stop Hausser's advance, with another 135,000 en route to occupy back-up positions. In contrast, Hausser received no reinforcements during *Zitadelle* and his men, machines and supplies were an ever-diminishing resource.

In the south, Kempf continued to attack although his effort no longer contributed

The Voronezh Front had three armoured units equipped with US-built M3 Grant and M3 Stuart tanks. The 230th Tank Regiment was defeated by Das Reich's Panzers on 5 July and on the same day, the 245th Tank Regiment was defeated by 11.Panzer-Division. (Author's collection)

A German mixed armoured *Kampfgruppe*, with SPWs and PzKpfw III tanks, moves towards an objective. The PzKpfw III Ausf. N was an infantry support variant that mounted the original 7.5cm KwK 37 L/24 howitzer from early version PzKpfw IV tanks. Working together with the Gepanzert (armoured Panzergrenadier Battalion), PzKpfw III Ausf. N tanks were well suited for reducing Soviet strongpoints. (Nik Cornish at www.Stavka.org.uk)

much to *Zitadelle*'s objectives. In order to enlarge the size of its salient, Breith's III Panzerkorps split its effort, with 19.Panzer-Division attacking westwards against the 81st Guards Rifle Division, while 6.Panzer-Division attacked north against 305th Rifle Division. The 19.Panzer-Division succeeded in advancing several kilometres and isolating the 81st Guards Rifle Division in Staryi Gorod; during the night, this division escaped the trap but was forced to abandon all its artillery. Nevertheless, it was a costly mistake to conduct single-division attacks into prepared defences without adequate air and artillery support. Consequently, the tough Soviet anti-tank defences exacted a heavy toll: 6.Panzer-Division had 38 tanks knocked out, 19.Panzer-Division lost 30 tanks and Sturmgeschütz-Abteilung 228 lost 12 StuG III assault guns. By the end of the day, Breith's III Panzerkorps had barely 100 operational tanks left and was running out of infantry. Vatutin assigned Kriuchenkin's 69th Army to take command over the seven rifle divisions and 2nd Guards Tank Corps in the Don Triangle and use them to stop Breith, while Shumilov's 7th Guards Army would be free to harass Raus' XI Armeekorps. For his part, von Manstein wanted Kempf to continue attacking so he transferred 198.Infanterie-Division from Panzerarmee 1 to Raus, which enabled 7.Panzer-Division to regroup for a new offensive push with its 50 remaining tanks. Von Manstein also raised the possibility of transferring one of Hoth's *Panzer-Divisionen* to reinforce Breith – a clear violation of the common sense doctrine that one should not reinforce failure – which Hoth rightly chose to ignore.

Some PzKpfw III Ausf. M medium tanks are also supporting the Gepanzert in case Soviet tanks appear. Equipped with the long 5cm KwK 39 L/60 cannon, the PzKpfw III Ausf. M could handle most Soviet infantry support tanks, such as the US-built Grant and Stuarts and British-built Valentines, but it was a different story if T-34s appeared in large numbers. Note the commander's head appearing just above the rim of the cupola – indicating that the unit expects to come under fire. (Nik Cornish at www.Stavka.org.uk)

10 July

Von Knobelsdorff decided to attack west with Großdeutschland and 3.Panzer-Division, while 11.Panzer-Division would push north towards Oboyan; XLVIII Panzerkorps was dissipating its combat power by attacking in two separate directions. Strachwitz's Panzer group attacked at 0330hrs but quickly ran into a tank brigade from Getman's 6th Tank Corps. Burkov's 10th Tank Corps also tried to disrupt Großdeutschland's advance by conducting frequent battalion-size tank attacks against the Grenadier-Regiment. The result was a series of tank engagements that went on all morning and bloodied both sides; Strachwitz himself was injured and replaced. Getman's 6th Tank Corps was reduced to just 35 tanks, but Großdeutschland only had 20 tanks and 26 assault guns left operational. In order to avoid encirclement, Getman's troops evacuated most of Verkhopen'ye at 1630hrs.

The 11.Panzer-Division, operating on its own, was not able to gain much ground along the road to Oboyan. Katukov reorganized his mangled 1st Tank Army and Vatutin provided him with the 5th Guards Tank Corps. Three fresh divisions (the 184th, 204th and 309th Rifle divisions) arrived from 38th and 40th armies to stiffen his line, as well. By diverting westwards, von Knobelsdorff missed a brief window of opportunity to potentially reach Oboyan.

Hausser finally redirected his attention back towards Prokhorovka and he intended to attack with both Totenkopf and LSSAH at first light, but heavy rains delayed the start until 1045hrs. The LSSAH attacked straight up the road towards Prokhorovka with two *Panzergrenadier-Bataillonen* and its reconnaissance battalion; most of the Panzer-Regiment was kept in reserve. Chistiakov no longer had a continuous front in this sector but placed his best remaining units to block the road. Major Ivan A. Szymanowski's 11th Motorized Rifle Brigade from 10th Tank Corps was entrenched on a small hill along the rail line, near the Komsomolets State Farm. This position was very strong, with an anti-tank ditch in front and a company of dug-in T-34s in support. When the LSSAH Panzergrenadiers approached, they came under heavy fire and the attached *Pioniere* could not move forwards to breach the obstacle. Eventually, four Tigers were brought forward and they methodically suppressed one Soviet tank and gun position after another. By 1425hrs, the 11th Motorized Rifle Brigade position had been overrun and 200 prisoners taken. Yet LSSAH halted its attack and dug in on Hill 241.6.

The Gepanzert (armoured Panzergrenadier Battalion) advances past a burning Russian village, probably hit by Nebelwerfer attack. The Gepanzert was almost always used in the spearhead of any attack and comprised a powerful combined-arms team; the Red Army had nothing like it. (Nik Cornish at www.Stavka.org.uk)

In an effort to outflank the main Soviet defences south-west of Prokhorovka, SS-Brigadeführer Max Simon's Totenkopf was ordered to cross the Psel River and then swing around

to strike Prokhorovka from the west. Due to the heavy rain, Fliegerkorps VIII could not provide Stuka sorties to support the crossing and Totenkopf's artillery observers could not observe targets on the far bank. The Psel was only about 10m across, but had soft banks that had been turned into thick mud by the rain. Simon sent two *Panzergrenadier-Bataillonen* across the Psel in assault boats and they managed to seize a toehold. However, the 52nd Guards Rifle Division – battered, but still in the fight – was defending the opposite bank and they poured down a heavy fire on the vulnerable Panzergrenadiers, which forced some to retreat back across the river. The situation changed in the afternoon when the rain stopped and the weather cleared enough for Stukas and Germany artillery to identify enemy positions on the far side. Once the enemy defences were suppressed, a second assault crossing succeeded in establishing a viable bridgehead across the Psel. Bridging units moved forward but did not actually begin construction of a pontoon bridge until the next day, meaning Simon's Panzergrenadiers would not have tank support for almost 24 hours. The assault crossing of the Psel cost Totenkopf 374 casualties and this was a move of questionable tactical value, since it would take a couple of days to get the division's armour across a 10m-wide obstacle.

Hausser massed the LSSAH into a narrow sector in order to make a major push towards Prokhorovka the next day, while Das Reich continued to guard his extended right flank against Soviet counterattacks. Yet unknown to Hoth, his window of opportunity was closing during the night of 10/11 July, as the Stavka reserves approached Prokhorovka in great strength. From Zhadov's 5th Guards Army, the 95th Guards Rifle Division began moving into position to block Totenkopf's bridgehead across the Psel, while the 9th Guards Airborne Division and more anti-tank guns arrived to reinforce the 2nd Tank Corps positions in front of Prokhorovka. Due to inadequate Luftwaffe deep reconnaissance and the Soviet mistrust of radio communications, German intelligence estimates remained unaware of the scale of enemy reinforcements heading to the battlefield.

Each Soviet Rifle Regiment had six 45mm M1937 anti-tank guns and the Rifle Division had a total of 30. This weapon was based on the Rheinmetall-designed 3.7cm Pak and provided Soviet units down to battalion level some anti-tank capability. When deployed in a village, like this example, the 45mm could be effective against German half-tracks and medium tanks. (Author's collection)

General-leytenant Andrei Getman, commander of the 6th Tank Corps, looks for signs of the enemy's advance. The rapid arrival of Getman's tank corps at the 6th Guards Army's second line of defence behind the Pena River prevented XLVIII Panzerkorps from crossing the river on the second day of *Zitadelle* and was one of the key decisions of the battle. Although Getman's 6th Tank Corps was badly mauled during the defensive phase, it accomplished its mission by slowing the enemy advance, then participated in a counterattack on 12 July that caught 3.Panzer-Division off-balance. (Author's collection)

In the south, the 81st Guards Rifle Division slipped away from encirclement by 19.Panzer-Division but Kriuchenkin's 69th Army mounted several spirited counterattacks against 6.Panzer-Division which forced Breith onto the defensive for much of the day. The 7.Panzer-Division was supposed to regroup for a new offensive push to the north, but spent the day fending off local enemy attacks, as well. Breith's III Panzerkorps had limited remaining offensive strength and did not appear able to assist Hausser's advance to Prokhorovka. Likewise, Raus' XI Armeekorps had shifted to the defence. Nevertheless, von Manstein urged Kempf to continue attacking and promised him some air support. In the larger picture, Model's 9.Armee had suspended its offensive against the northern side of the Kursk salient, having suffered heavy losses and failing to achieve a breakthrough. Once it did not have to worry about German attacks in the north, Stavka could now direct all its resources towards stopping von Manstein's forces, which made *Zitadelle*'s goals no longer achievable.

For his part, Vatutin was alarmed by the decimation of Chistiakov's 6th Guards Army, but believed that von Manstein's forces had also suffered very heavy losses, as well. At this point, the Voronezh Front military council examined its options and decided that conducting a major counterattack with Rotmistrov's 5th Guards Tank Army and Zhadov's 5th Guards Army offered the best chance of shutting down *Zitadelle*'s remaining momentum, rather than simply sitting passively on the defence. On the night of 10/11 July, the Voronezh Front staff began planning the counter-offensive.

VATUTIN'S COUNTER-OFFENSIVE, 11–12 JULY

11 July

Before dawn, Wisch's LSSAH assembled both its Panzergrenadier regiments, their Sturmgeschütz-Abteilung and the four remaining Tigers to spearhead Hausser's big push to Prokhorovka. The Panzer-Regiment and Peiper's SPW-equipped battalion would remain in reserve until a breakthrough was achieved, then sprint forward to capture the town. Simultaneously, Totenkopf

would advance from its bridgehead across the Psel, overrunning the Soviet artillery positions on the far side. Das Reich remained on the defensive. However, Hausser's battle plan went awry when heavy morning rain prevented Fliegerkorps VIII from providing Stuka support and new Soviet units suddenly appeared in the path of II SS-Panzerkorps.

Around 0600hrs, the LSSAH vanguard began to advance from the Komsomolets State Farm, with two *Panzergrenadier-Bataillonen* on each side of the elevated rail line that ran to Prokhorovka. On the west side, the assault guns and Tigers followed behind the Panzergrenadiers from SS-Panzergrenadier-Regiment 2, who had to walk in daylight across 3km of open fields. On the east side, two battalions from SS-Panzergrenadier-Regiment 1 advanced to clear the Storezhevo Woods. The 26th Guards Airborne Regiment from 9th Guards Airborne Division had occupied fortified hilltop positions on either side of the rail line and was supported by anti-tank guns and tanks from 2nd Tank Corps. The 287th Guards Rifle Regiment was positioned on the south side of the Psel, while there were both infantry and tanks in the Storezhevo Woods. Like the British Light Brigade at Balaklava, the LSSAH was marching into a kill zone with Russians firing at them from three sides. Over 200 Soviet guns and mortars were zeroed in on this small sector, awaiting the German attack.

The SS-Panzergrenadiers were out in the open when the Soviet artillery opened fire, forcing them to halt. Without air support and only modest artillery support, the Panzergrenadiers could only advance slowly in bounds. Soon, the LSSAH Panzergrenadiers discovered that there was another anti-tank ditch and a deep minefield between them and their objectives. Dug-in Soviet tanks and anti-tank guns repeatedly hit the accompanying Tigers and assault guns. The Tigers returned fire and knocked out a number of T-34s and AT guns with their long 8.8cm guns, but their company commander was wounded, then his replacement. It took over two hours for *Pioniere* to laboriously breach these obstacles, before the attack could continue moving forward. The attack might have failed altogether had the rain not stopped around 0900hrs and 50 Stukas arrived to dive-bomb the Soviet positions. Once partly suppressed, the LSSAH assault units were able to close in on their objectives by 1030hrs while the assault guns and Tigers swung around the strongpoint at Hill 252.2 to envelop the defending 3rd Battalion of the 26th Guards Airborne Regiment. Nevertheless, it still took almost four hours of intense infantry combat and the commitment of Peiper's SPW battalion to secure this position. By late afternoon, the LSSAH had advanced 4km and the lead troops were within 3km of Prokhorovka, but the

German infantry advance cautiously behind a Tiger, which has destroyed a T-34 in the woods to the right. Aside from the Waffen-SS, most of the German infantry were somewhat less aggressive during *Zitadelle* than in previous offensives on the Eastern Front. Most of the *Landser* (soldiers) now realized that they were fighting for survival, not imminent victory, and adopted a more cautious approach. (Author's collection)

attack had lost all momentum due to casualties and constant Soviet small-scale counterattacks. The LSSAH suffered 337 casualties in this attack and had 10 StuG IIIs knocked out.

Since the bridging units were slow to deploy and begin construction work, Totenkopf was unable to break out of its bridgehead without tank support. Even worse, Totenkopf's artillery regiment was temporarily short of ammunition. When the lead elements of the 95th and 97th Guards Rifle divisions from 5th Guards Army arrived, they immediately began probing attacks against the bridgehead. Consequently, Totenkopf spent most of the day immobile, suffering 450 casualties for no gains. Two pontoon bridges were completed by 1450hrs, but it would take all night to move tanks and supplies across the river – a vital day had been wasted.

Amazingly, just as Hausser's offensive was slowing, Breith's III Panzerkorps demonstrated a surge of activity that surprised everyone. The retreat of the shattered 81st Guards Rifle Division from the area north of Belgorod allowed 168.Infanterie-Division to advance and Kempf's forces began squeezing the enemy forces in the Donets Triangle. On the night of 10/11 July, Kriuchenkin's 69th Army reorganized its front-line units, with General-leytenant Sergei G. Goriachev's 35th Guards Rifle Corps conducting reliefs in place in the sector just north of Melikhovo. Assessing that Breith's III Panzerkorps was no longer fully combat effective, Vatutin pulled armour reserves away from this sector, leaving Kriuchenkin with only about 60 tanks to support his infantry.

Before Goriachev's troops had a chance to fully settle in, they were hit by an artillery bombardment at 0500hrs, followed by dive-bombing attacks by III./Sturzkampfgeschwader 77. Soviet fighters intervened and shot down five Ju-87s, but it was too late. Using Melikhovo as a springboard, Breith attacked northwards with von Hünersdorff's 6.Panzer-Division and the Tigers of schwere Panzer-Abteilung 503 against the 305th Rifle Division near Ol'khovatka, while Schmidt's 19.Panzer-Division made a supporting attack against the 89th Guards Rifle Division positions near Khokhlovo and Kiselevo. Kampfgruppe Oppeln from 6.Panzer-Division placed all the Tigers at the front in one of the rare examples of a *Panzerkeil* at Kursk and simply blasted its way through the 305th Rifle Division, despite mines and anti-tank fire. The Soviet tank regiment assigned to support the 305th Rifle Division was shot to pieces by the Tigers, losing 14 T-34s and 3 T-70s. By early afternoon, the regimental headquarters in Ol'khovatka was overrun, then Oppeln continued pushing north another 8km, capturing Verkhniy Ol'shanets and Kazach'e by 2200hrs. Kampfgruppe Horst from 19.Panzer-Division also

The Germans used Nebelwerfer rocket batteries to suppress targets just before an attack. Although the Nebelwerfer was a short-range weapon, it could lay down a heavy barrage in seconds. (Nik Cornish at www.Stavka.org.uk)

quickly pierced through the 89th Guards Rifle Division's front, captured Khokhlovo and Kiselevo and forced the Soviet division to withdraw across the Northern Donets. The discomfiture of Goriachev's 35th Guards Rifle Corps was complete when 7.Panzer-Division – which was merely supposed to protect the eastern flank of the salient – launched probing attacks in the afternoon which created a gap in the Soviet front, then used its Panzers to surround two regiments from the 94th Guards Rifle Division. By nightfall, the 35th Guards Rifle Corps was in full retreat and Kriuchenkin could not understand what had happened to his front.

While Hausser and Breith were trying to link up, von Knobelsdorff's XLVIII Panzerkorps continued attacking westwards to eliminate Getman's 6th Tank Corps dug in around Berezovka, with the intent of rolling up the entire line of defence behind the Pena River. Katukov saw the blow coming after the loss of Verkhopen'ye and ordered Getman to pull back during the night of 10/11 July. Unfortunately, Soviet communication difficulties prevented the 90th Guards Rifle Division and parts of 3rd Motorized Corps from getting the word and they were still in place when the Großdeutschland began attacking from the north at 0500hrs and advanced to envelop Berezovka. At 0800hrs, 3.Panzer-Division sent a Panzergrenadier-Regiment across the Pena at Syrtsevo, heading towards Berezovka from the east. Three hours later, 332.Infanterie-Division crossed the Pena at Alekseevka with 678. Infanterie-Regiment. Hit from three sides, the Soviet defence quickly collapsed and Großdeutschland's Panzers closed the small pocket at 1500hrs. By 1610hrs, Berezovka had fallen. Altogether, von Knobelsdorff's enveloping attack smashed part of the 90th Guards Rifle Division and two mechanized brigades from Krivoshein's 3rd Motorized Corps, with 2,778 prisoners taken. Afterwards, 332.Infanterie-Division pushed west and secured Rakovo, while engineers built several bridges over the Pena. The Berezovka encirclement was a nice tactical victory for XLVIII Panzerkorps, but it was supposed to have crossed the Pena on the second day of *Zitadelle*, not the seventh.

Vatutin and Khrushchev were shocked by Breith's sudden breakthrough and feared that III Panzerkorps might actually link up with II SS-Panzerkorps after all. The fact that Hausser had reached the outskirts of Prokhorovka and von Knobelsdorff was now free to push on to Oboyan induced a crisis atmosphere that extended all the way back to the Kremlin; Stalin was now worried that the Germans might actually break through to Kursk. Khrushchev later wrote that, 'We were running out of reserves … the enemy had chewed his way through three belts of defence.' This was not the way that the battle was supposed to develop according to Zhukov – the enemy's armour should have been shattered by this defence – but now it was the defence that appeared shattered. Rather than finishing off a mortally wounded foe as planned, committing Rotmistrov's 5th Guards Tank Army now appeared the only way to prevent a decisive German breakthrough.

A German guard escorts two prisoners past a destroyed T-34 tank. The three-day battle in the Tolstoye Woods led to a series of small-scale infantry-tank actions in wooded and rough terrain, which negated German advantages in long-range firepower. (Nik Cornish at www.Stavka.org.uk)

GRAHAM TURNER

***PIONIERE VORWÄRTS!* OBSTACLE BREACHING UNDER FIRE, 0830HRS, 11 JULY 1943 (PP. 74–75)**

The Germans were shocked by the density of Soviet minefields at Kursk, which greatly cramped their style of manoeuvre warfare. Although German *Pioniere* had developed the Borgward IV series and Goliath demolition vehicles to quickly clear paths through small minefields, von Manstein did not request any specialized engineering equipment for *Zitadelle* so the *Pioniere* of Heeresgruppe Süd were expected to clear all mines by hand.

On the morning of 11 July, the LSSAH began its main push towards Prokhorovka with four battalions of dismounted Panzergrenadiers, supported by Tigers and assault guns, advancing across several kilometres of flat, open fields. Their initial objective was Hill 252.2, 4.8km south-west of Prokhorovka, which was held by a Soviet airborne battalion, supported by artillery and anti-tank guns. SS-Hauptsturmführer Hans Becker's battalion, the I./SS-Panzergrenadier-Regiment 2, marched directly towards Hill 252.2 while the other battalion angled off to the left to try to outflank the hill. About halfway to their objective, the Panzergrenadiers came under intense artillery and direct fire from three sides and could only move forward in small bounds.

Becker's Panzergrenadiers soon encountered a dense minefield blocking their path, as well as barbed wire and, behind that, an anti-tank ditch. Becker ordered the *Pioniere* from SS-Hauptsturmführer Taubert's Pionierkompanie 1, SS-Panzer-Pionier-Bataillon 1, forward to clear the mines. It took Taubert's *Pioniere* over two hours to breach the obstacle, under heavy fire the entire time. Soviet artillery and mortar fire zeroed in on the exposed *Pioniere*, who used smoke grenades to provide some concealment. After a lane was cleared by hand (**1**), Taubert's *Pioniere* then had to use explosives to knock down the walls of the anti-tank ditch (**2**), so German armour could cross to support the attack on Hill 252.2. Throughout *Zitadelle*, the *Pioniere* were called upon repeatedly to breach obstacles, suffering heavy casualties, and receiving little credit for their key role in enabling the Panzers to break through Vatutin's defences.

A Panther guarding a road intersection, next to a knocked-out Valentine tank and a T-34/76. More knocked-out T-34s are in the fields. The Panther's long 7.5cm gun proved its worth at Kursk when given the opportunity in open ground, but too often Panzer-Regiment 39 was misused in tactical situations where it had little infantry support and blundered into close-range ambushes. (Author's collection)

Vatutin had hoped to use the Stavka reserves in a carefully prepared combined-arms attack with air and artillery support, but his hopes were dashed by the urgent need to act before the next series of German offensive pulses. Rotmistrov's 5th Guards Tank Army, with the 33rd Guards Rifle Corps from Zhadov's 5th Guards Army, was ordered to attack II SS-Panzerkorps the next morning. In order to put maximum pressure on the Germans, Katukov's 1st Tank Army and Chistiakov's 6th Guards Army were ordered to simultaneously attack XLVIII Panzerkorps. Zhadov was ordered to provide 6th Guards Army with his 32nd Guards Rifle Corps, while Katukov received additional infantry from Moskalenko's 40th Army. Vatutin had plenty of heavy artillery provided from the Stavka reserves, but the artillery support plan fell apart due to communication problems and the lack of forward observers. Likewise, air support from 2nd VA fell victim to a hasty planning effort that simply focused on getting Rotmistrov's tanks to be in position by the next morning. While Voronezh Front was intimately familiar with the terrain and enemy dispositions in its sector, no intelligence updates were passed to the 5th Guards Tank Army staff, so Rotmistrov developed his plan without a clear picture of how Hausser's II SS-Panzerkorps was deployed. Rotmistrov issued his attack order to 5th Guards Tank Army at 1800hrs and the counter-offensive was set to begin the next morning at 1000hrs. At 2300hrs, the 5th Guards Tank Army began moving into its assault positions.

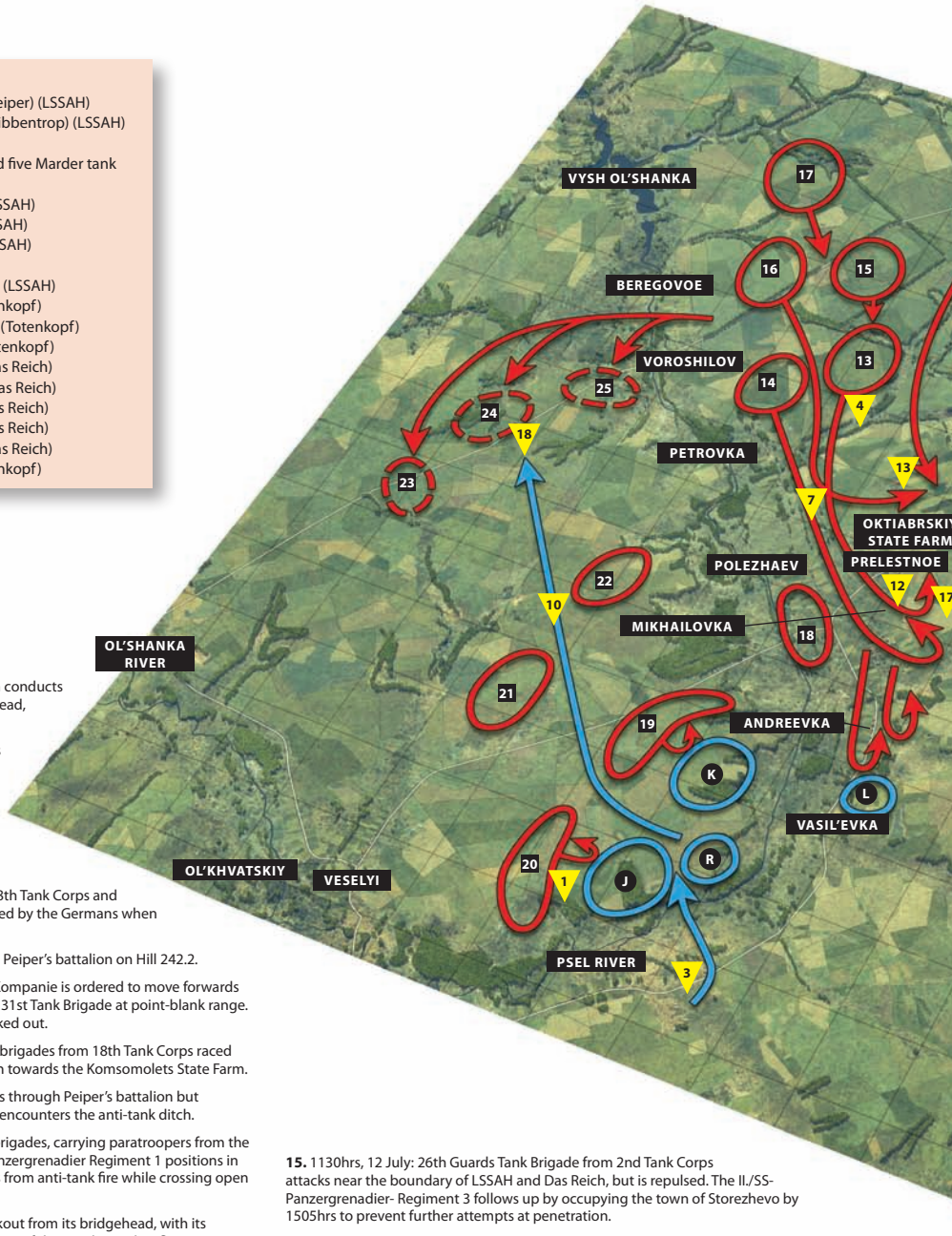
Soviet Guards rifle troops advance past knocked-out German medium tanks. The Soviets launched aggressive local counterattacks throughout *Zitadelle*, which helped to keep the Germans off balance. The soldier in front is carrying the PTRD-41 anti-tank rifle (14.5mm), which proved to be a considerable nuisance to German tank commanders with their heads exposed out of the cupola. At least one Tiger commander was severely wounded by a PTRD-41 round. (Author's collection)

12 July

During the night of 11/12 July, 6. Panzer-Division gambled that the 69th Army's front was still in a flux and decided to mount a tank raid to try and seize a bridge over the Northern Donets at Rzhavets. Major Franz Bäke led a *Kampfgruppe* of 20 German tanks and a battalion of Panzergrenadiers, led by two captured T-34s, through Soviet lines. Bake

GERMAN UNITS

- **A.** III./SS-Panzergrenadier-Regiment 2 (Peiper) (LSSAH)
- **B.** 6.Kompanie, SS-Panzer-Regiment 1 (Ribbentrop) (LSSAH)
- **C.** SS-Aufklärungs-Abteilung 1 (LSSAH)
- **D.** II./SS-Panzergrenadier-Regiment 1 and five Marder tank destroyers (LSSAH)
- **E.** III./SS-Panzergrenadier-Regiment 1 (LSSAH)
- **F.** I./SS-Panzergrenadier-Regiment 2 (LSSAH)
- **G.** II./SS-Panzergrenadier-Regiment 2 (LSSAH)
- **H.** 5., 7./SS-Panzer-Regiment 1 (LSSAH)
- **I.** 13./SS-Panzer-Regiment 1 (Wittmann) (LSSAH)
- **J.** SS-Panzergrenadier-Regiment 5 (Totenkopf)
- **K.** II., III./SS-Panzergrenadier-Regiment 6 (Totenkopf)
- **L.** I./SS-Panzergrenadier-Regiment 6 (Totenkopf)
- **M.** II./SS-Panzergrenadier-Regiment 3 (Das Reich)
- **N.** III./SS-Panzergrenadier-Regiment 3 (Das Reich)
- **O.** I./SS-Panzergrenadier-Regiment 3 (Das Reich)
- **P.** I./SS-Panzergrenadier-Regiment 4 (Das Reich)
- **Q.** II./SS-Panzergrenadier-Regiment 4 (Das Reich)
- **R.** SS-Panzergrenadier-Regiment 3 (Totenkopf)



EVENTS

1. 0600hrs, 12 July: 52nd Guards Rifle Division conducts early morning attacks on Totenkopf's bridgehead, which continue for several hours.

2. 0830hrs, 12 July: Rotmistrov's attack begins with a 15-minute artillery preparation on the German forward positions.

3. 0900hrs, 12 July: Totenkopf's SS-Panzer-Regiment 3 crosses the pontoon bridge over the Psel and assembles on the northern bank.

4. 0900hrs, 12 July: over 300 tanks from the 18th Tank Corps and 29th Tank Corps surge forwards and are spotted by the Germans when they are only 1km away.

5. 0915hrs, 12 July: 32nd Tank Brigade attacks Peiper's battalion on Hill 242.2.

6. 0915hrs, 12 July: von Ribbentrop's Panzer-Kompanie is ordered to move forwards to the crest of Hill 252.2 where it engages the 31st Tank Brigade at point-blank range. Four PzKpfw IVs and 20 Soviet tanks are knocked out.

7. 0930hrs, 12 July: the 170th and 180th Tank brigades from 18th Tank Corps raced past Peiper's open left flank and headed south towards the Komsomolets State Farm.

8. 1000hrs, 12 July: 32nd Tank Brigade assaults through Peiper's battalion but becomes disorganized when it unexpectedly encounters the anti-tank ditch.

9. 1000hrs, 12 July: the 25th and 169th Tank brigades, carrying paratroopers from the 28th Guards Airborne Regiment, attack SS-Panzergrenadier Regiment 1 positions in the Storezhevo Woods but suffer heavy losses from anti-tank fire while crossing open ground.

10. 1000hrs, 12 July: Totenkopf begins a breakout from its bridgehead, with its Panzer-Regiment grinding through the defences of the 52nd Guards Rifle Division and 42nd Guards Rifle Division.

11. 1115hrs, 12 July: the other two Panzer companies from Leibstandarte's II./SS-Panzer-Regiment 1 counterattack and destroy over 60 Soviet tanks near the anti-tank ditch.

12. 1130hrs, 12 July: Wittmann's four Tigers engage over 60 Soviet tanks from the 170th and 181st Tank brigades, knocking out about 20 for the loss of one Tiger.

13. The 53rd Motor Rifle Brigade fights for the Oktiabrskiy State Farm but suffers over 1,000 casualties from German artillery and air strikes.

14. A few Soviet tanks manage to infiltrate and approach the Komsomolets State Farm, briefly threatening the LSSAH artillery.

15. 1130hrs, 12 July: 26th Guards Tank Brigade from 2nd Tank Corps attacks near the boundary of LSSAH and Das Reich, but is repulsed. The II./SS-Panzergrenadier- Regiment 3 follows up by occupying the town of Storezhevo by 1505hrs to prevent further attempts at penetration.

16. 1200hrs, 12 July: 4th Guards Tank Brigade from 2nd Guards Tank Corps attacks and penetrates between Das Reich's Deutschland and Der Führer regiments, reaching the outskirts of Yasnaya Polyana. The Soviet tank attack falters due to the lack of adequate infantry support. Further south, the other two brigades of 2nd Guards Tank Corps attack and briefly penetrate Das Reich's lines, before being repulsed by SS-Panzerjägers and a counterattack by SS-Panzer-Regiment 2.

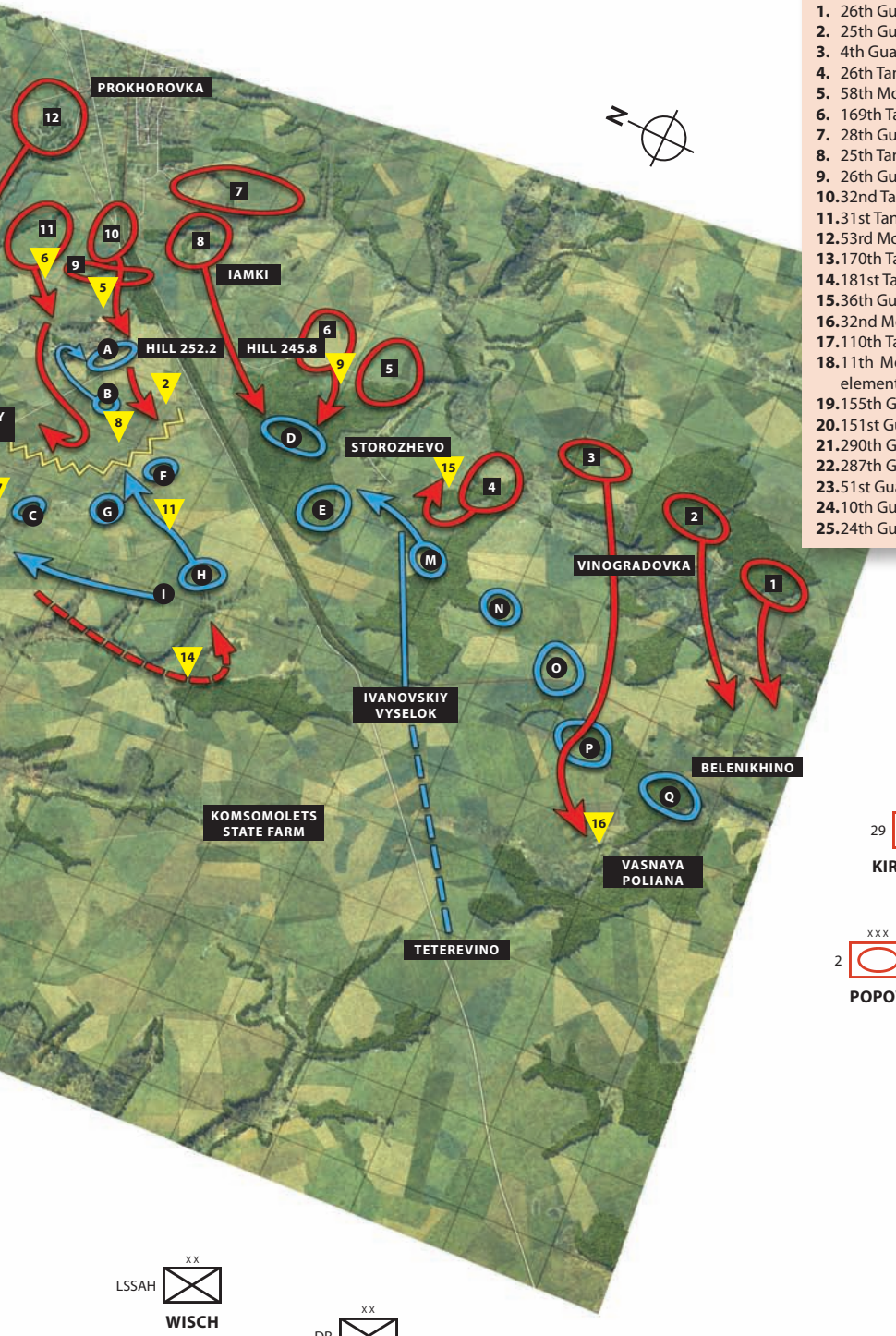
17. 1800hrs, 12 July: the 107th and 181st Tank brigades attack Totenkopf's flank battalion at Vasilevka, but are repulsed by Nebelwerfer and anti-tank fire.

18. Late afternoon: the 5th Guards Motorized Corps deploys two brigades with over 100 tanks to prevent Totenkopf from outflanking Prokhorovka. Totenkopf's Panzer-Regiment reaches the Kartashevka–Prokhorovka road before midnight, but stops due to ammunition shortages.

THE BATTLE OF PROKHOROVKA, 12 JULY 1943

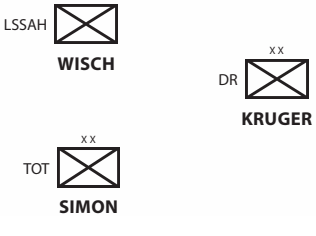
Rotmistrov's 5th Guards Tank Army directed most of its main armoured attack against LSSAH near Hill 252.2, while other units attempted to penetrate Das Reich's extended flank. However, Totenkopf broke out of its bridgehead across the Psel and began to move to outflank the Soviet defences around Prokhorovka.

Note: Gridlines are shown at intervals of 1km (0.62 miles)



Soviet units

1. 26th Guards Tank Brigade (2nd GTC)
2. 25th Guards Tank Brigade (2nd GTC)
3. 4th Guards Tank Brigade (2nd GTC)
4. 26th Tank Brigade (2nd TC)
5. 58th Motor Rifle Brigade (2nd TC)
6. 169th Tank Brigade (2nd TC)
7. 28th Guards Airborne Regiment (9th GAbnD)
8. 25th Tank Brigade (29th TC)
9. 26th Guards Airborne Regiment (9th GAbnD)
10. 32nd Tank Brigade (29th TC)
11. 31st Tank Brigade (29th TC)
12. 53rd Motor Rifle Brigade (29th TC)
13. 170th Tank Brigade (18th TC)
14. 181st Tank Brigade (18th TC)
15. 36th Guards Tank Regiment (Churchills) (18th TC)
16. 32nd Motor Rifle Brigade (18th TC)
17. 110th Tank Brigade (18th TC)
18. 11th Mechanized Rifle Brigade (5th GMC) and elements 99th Tank Brigade (2nd TC)
19. 155th Guards Rifle Regiment (52nd GRD)
20. 151st Guards Rifle Regiment (52nd GRD)
21. 290th Guards Rifle Regiment (42nd GRD)
22. 287th Guards Rifle Regiment (42nd GRD)
23. 51st Guards Tank Regiment (5th GTA)
24. 10th Guards Mechanized Brigade (5th GMC)
25. 24th Guards Tank Brigade (5th GMC)



The ability of Rotmistrov's 5th Guards Tank Army to move 300km on their own tracks and then conduct a major attack was an impressive demonstration of operational mobility. While the T-34/76 lacked the firepower and protection of the latest German heavy tanks, it continued to have the edge in mobility – which paid dividends during the 1943 campaigns. (Courtesy of the Central Museum of the Armed Forces, Moscow via Stavka)

surprised a company of T-34s at the bridge, destroying them in a point-blank range action, and captured the bridge by 0500hrs. The 6.Panzer-Division quickly pushed two battalions of Panzergrenadiers and a few Tiger tanks into the Rzhavets bridgehead to hold it against the expected counterattacks. Shortly after Bäke captured the Rzhavets Bridge, Vatutin was informed that Breith's armour was across the Northern Donets and could advance upon Prokhorovka from the south. Although Breith's depleted divisions were hard-pressed to hold their gains, Vatutin assumed the worst. He ordered Rotmistrov to dispatch a substantial task force under the 5th Guards Tank Army deputy commander, General-major Kuzma G. Trufanov, to deal with the Rzhavets bridgehead. Vatutin also ordered Rotmistrov to begin his counterattack sooner, before the Germans interfered with his deployment.

The night before the attack, Vatutin added Burdeiny's 2nd Guards Tank Corps and Popov's 2nd Tank Corps to Rotmistrov's command, which meant there was little time to coordinate their actions with the rest of the 5th Guards Tank Army. Likewise, Zhadov was only able to get a single division, the 42nd Guards Rifle Division, forward in time to support 5th Guards Tank Army's attack. Rotmistrov intended to make his main effort with General-major Boris S. Bakharov's 18th Tank Corps and General-major Ivan F. Kirichenko's 29th Tank Corps against the LSSAH positions around Hill 252.2 south-west of Prokhorovka; this was a force of 339 tanks in six tank brigades. General-major Boris M. Skvortsov's 5th Guards Motorized Corps was unable to participate in the attack, since it had provided tanks and two mechanized brigades to Trufanov and its other brigades to contain Totenkopf's bridgehead over the Psel. Oddly, Rotmistrov directed Trufanov to counterattack south-east against the Rzhavets bridgehead, while 2nd Tank Corps and 2nd Guards Tank Corps, with a total of 190 tanks, were directed to strike the Das Reich division. Rather than a massed strike of over 600 tanks against a single objective – as has often been portrayed – Rotmistrov's counterstroke at Prokhorovka was spread across a 25km-wide front against divergent tactical objectives.

On the reverse slope of Hill 252.2, Peiper's III./SS-Panzergrenadier-Regiment 2 and one tank company with seven PzKpfw IVs were waiting. The other two *Panzergrenadier-Bataillonen* and the rest of the Panzers were deployed further back, preparing to continue the attack towards Prokhorovka. Peiper had good communications with both his supporting artillery and on-call Stuka missions from Fliegerkorps VIII, but he had no German units nearby on either flank. The 15-minute Soviet artillery preparation and sounds of hundreds of engines that began at 0830hrs alerted Peiper to an impending enemy counterattack. As the Soviet artillery fire lifted, the 18th Tank Corps and 29th Tank Corps surged forwards on either side of the rail line, each with two tank brigades up front, followed by their third tank brigade and

mechanized brigade. Visibility was obscured due to haze and smoke, so the LSSAH troops on Hill 252.2 only saw the approaching armoured phalanx when it was within 1,000m. The Germans were accustomed to seeing attacks by individual Soviet tank brigades, but not six brigades at once, which caught them by surprise. Nevertheless, around 0900hrs German tanks engaged the oncoming T-34s, while the Panzergrenadiers called for artillery and Stukas. The Soviet tanks came on fast, firing on the move, and engaged the company of PzKpfw IVs at point-blank range, destroying 4 of them but losing about 20 of their own. Some T-34s fought their way onto Hill 252.2 and tried to overrun Peiper's Panzergrenadiers, who fought wildly for their lives. At least 20 of Peiper's SPW half-tracks were destroyed in the fight. For a moment, it seemed that Rotmistrov's tank assault might actually destroy LSSAH's spearhead.

Khrushchev (right) reports to Stalin on the arrival of Rotmistrov's (standing, with glasses) 5th Guards Tank Army at the front on 10 July 1943. Although Vatutin was the military brains behind the Voronezh Front, Khrushchev played a dominant role in all operational planning and pressured Vatutin to use 5th Guards Tank Army before the Germans achieved a breakthrough at Prokhorovka. As long as the Red Army was burdened with the interference of politicians, it was difficult for it to conduct professionally planned operations. (Author's collection)

While the 31st and 32nd Tank brigades from 29th Tank Corps, along with paratroopers from 9th Guards Airborne Division, tried to overrun Peiper, the 170th and 180th Tank brigades from 18th Tank Corps raced past Peiper's open left flank and headed south towards the Komsomolets State Farm. Kirichenko's other brigade, the 25th Tank Brigade, continued into the Storezhevo Woods, where more Panzergrenadiers and five Marder II tank destroyers were located. If Rotmistrov had simply concentrated on crushing the Germans on Hill 252.2, the LSSAH might have suffered painful losses. Instead, Rotmistrov's mass quickly dissipated itself over the battlefield. Rotmistrov's attack began to fall apart around 1030hrs when Bakharov's tank brigades unexpectedly encountered the anti-tank ditch near the Komsomolets State Farm, with some T-34s actually running into it at full speed. The rest of the 18th Tank Corps halted before the obstacle, uncertain what to do next. Rotmistrov had not attached any engineers to the tank corps, so there was no one to breach the obstacle.

A Soviet anti-tank gun has knocked out a German StuG III assault gun at point-blank range. Weapons like this, that are low to the ground, are far more difficult to spot than enemy tanks and the Germans continually encountered anti-tank ambushes every time they advanced. (Courtesy of the Central Museum of the Armed Forces, Moscow via Stavka)

GRAHAM TURNER

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ROTMISTROV'S TANKS NEARLY OVERWHELM PEIPER'S BATTALION ON HILL 252.2, 0930HRS, 12 JULY 1943 (PP. 82–83)

On the morning of 12 July, SS-Sturmbannführer Joachim Peiper's battalion (III./SS- Panzergrenadier-Regiment 2) was dug in on the reverse slope of Hill 252.2, which had been captured on the previous day. Peiper was expecting to resume the advance towards Prokhorovka and had all his SPW half-tracks on the reverse slope with him. Around 0830hrs, Soviet artillery bombarded the position for 15 minutes and after that, Peiper's men began to hear the noise of hundreds of tank engines. Peiper was not aware of it, but his battalion was about to receive the brunt of the attack by Rotmistrov's 5th Guards Tank Army. There were no friendly units on either of Peiper's immediate flanks and his only nearby armoured support was seven PzKpfw IVs from Obersturmführer Rudolf von Ribbentrop's company (6./SS-Panzergrenadier-Regiment 1).

Visibility was obscured by smoke and haze, but around 0915hrs, Peiper's forward outposts spotted a mass of Soviet tanks heading their way (**1**). The oncoming armada was from General-major Ivan F. Kirichenko's 29th Tank Corps and comprised 130 tanks from Polkovnik Stepan F. Moiseev's 31st Tank Brigade and Polkovnik Aleksei A. Linev's 32nd Tank Brigade. Paratroopers from the 9th Guards Airborne Division were riding on the back deck of the T-34s (**2**). Peiper hurriedly fired off purple smoke to indicate enemy tank attack. Ribbentrop's tanks were also caught by surprise and did not spot the T-34s until they were only 200m away. The Soviet tanks came on fast, firing on the move. Ribbentrop's tank company knocked out 21 of Moiseev's T-34s but were overwhelmed and forced to retreat after 4 PzKpfw IVs were knocked out (**3**). The Soviet tanks barrelled over the crest of the hill, straight into Peiper's positions.

Here, Peiper's Panzergrenadiers are shown fighting for their lives as T-34s and paratroopers virtually land in their laps. Some SS-Panzergrenadiers stalked the T-34s with the magnetic anti-tank mine (Hafthohlladung) and knocked out a few. In return, T-34s shot up and destroyed 20 of Peiper's SPW half-tracks (**4**).

The Soviet tank assault gradually devolved into chaos and Peiper's battalion managed to survive, thanks to a timely counterattack by LSSAH's two reserve tank companies. Both Soviet tank brigades were shattered, losing a total of 98 tanks, but Peiper was forced to yield the hill and retreat behind the anti-tank ditch.

As Soviet tanks fumbled around the anti-tank ditch, the other two companies from II./SS-Panzer-Regiment 1 swung into action around 1115hrs and quickly destroyed many T-34s. Four Tigers under the command of SS-Untersturmführer Michael Wittmann were sent to prevent the 170th and 181st Tank brigades from reaching the Komsomolets State Farm; in an epic duel that began at 1,800m, Wittmann's Tigers took on a mass of over 60 Soviet tanks and knocked out one-third of them for the loss of one Tiger. By noon, Rotmistrov's attack was ebbing but he did not break off the action until after 1500hrs. Peiper's battalion survived but was forced to retreat from Hill 252.2, which was held by the Soviets by nightfall. The LSSAH survived this massive tank attack, after suffering 374 casualties and 17 AFVs knocked out. Rotmistrov's 18th Tank Corps and 29th Tank Corps were shattered, after losing 299 tanks and SP guns.

A disabled Tiger tank from the LSSAH Division. The 13./SS-Panzer-Regiment 1 began *Zitadelle* with 12 operational Tigers; 8 were operational when the offensive ended on 15 July. The company lost one Tiger destroyed by enemy tanks and one cannibalized for spare parts. All of the tanks suffered mine damage during the battle and two company commanders were wounded. The LSSAH claimed that this Tiger company knocked out 150 enemy tanks during *Zitadelle*. (Author's collection)

Due to poor coordination, the 2nd Tank Corps and 2nd Guards Tank Corps did not attack Das Reich until nearly noon, by which point Rotmistrov's main attack had already failed. These two corps launched half-hearted attacks that inflicted 211 casualties upon Das Reich, but failed to accomplish much and lost another 69 tanks. Rotmistrov's counterattack had been a costly disaster, brought about by hasty planning and inattention to detail. However, the 5th Guards Tank Army did enjoy one success on 12 July, which was helping to prevent Totenkopf from using its bridgehead across the Psel to outflank Prokhorovka. During the night of 11/12 July, the 33rd Guards Rifle Corps from 5th Guards Army took over the Psel sector and placed the 95th Guards Rifle Division directly in the path of Totenkopf. During the morning of 12 July, the 95th Guards Rifle Division made spirited local attacks against Totenkopf, inflicting painful losses. By 0900hrs, Totenkopf moved its entire Panzer-Regiment across the Psel and began attacking the 95th Guards Rifle Division positions overlooking the bridgehead; despite tough resistance, the Soviet positions were slowly overrun. After gaining some elbow room, Totenkopf assembled its Panzer-Regiment into a large *Panzerkeil*, with ten Tigers at the front, and began pushing northwards around 1500hrs. It was a slow, slogging march as the SS-Panzers encountered mines and concealed anti-tank guns, again and again. Totenkopf's *Panzerkeil* advanced 5km in about 9hrs and 28 AFVs (including tanks, assault guns and self-propelled guns) were knocked out or damaged, including 5 Tigers. Ammunition and fuel were in short supply at the spearhead and the appearance of two fresh brigades from 5th Guards Motorized Corps in their path convinced Totenkopf to halt for the night. Totenkopf's advance was the high-water mark for Hausser's II SS-Panzerkorps at Kursk – they would get no further.

While Rotmistrov was attacking II SS-Panzerkorps, 1st Tank Army and 6th Guards Army also began to advance against the left flank of XLVIII Panzerkorps. Von Knobelsdorff intended to attack north towards Oboyan on 12 July and began shifting his forces around so that Großdeutschland and 11.Panzer-Division were facing northwards, while 3.Panzer-Division and 332.

Three abandoned Panther tanks seen from the air after *Zitadelle* ended. The Germans found it difficult to recover so many stranded Panthers, and since Hitler ordered that none were to fall into Soviet hands intact, over 50 were blown up when Hoth's forces withdrew to their start line. (Nik Cornish at www.Stavka.org.uk)

Artillery rounds explode near Soviet infantry waiting in a fighting position. Note that the Soviet infantry are deployed on a reverse slope and thus probably not visible yet to the enemy. When the Germans come over the crest of the hill, they will be engaged at a range under 200m. (Nik Cornish at www.Stavka.org.uk)

Infanterie-Division protected the corps' left flank. Around 0800hrs, the 10th Tank Corps and 5th Guards Tank Corps attacked into the flank of 3.Panzer-Division with over 200 tanks and caught the Germans by surprise while they were redeploying. The armoured attack drove a 4km-deep bulge into the German left flank and occupied the Tolstoye Woods north-west of Berezovka. Four rifle divisions followed behind the Soviet attacks. Von Knobelsdorff was forced to abort his own offensive and send *Kampfgruppen* from Großdeutschland to deal with this unexpected threat. Meanwhile, Chernienko's 31st Tank Corps (about 100 tanks) and the fresh infantry of 32nd Guards Rifle Corps attacked 11.Panzer-Division and pushed it back, further adding to von Knobelsdorff's problems. By afternoon, XLVIII Panzerkorps had weathered repeated enemy attacks, but it had been forced onto the defensive. While the western part of Vatutin's counter-offensive does not draw the attention that the battle of Prokhorovka does, it was quite costly for both sides: 1st Tank Army and 6th Guards Army suffered 6,396 casualties and lost 37 AFVs, while XLVIII Panzerkorps had over 800 casualties and 55 AFVs knocked out.

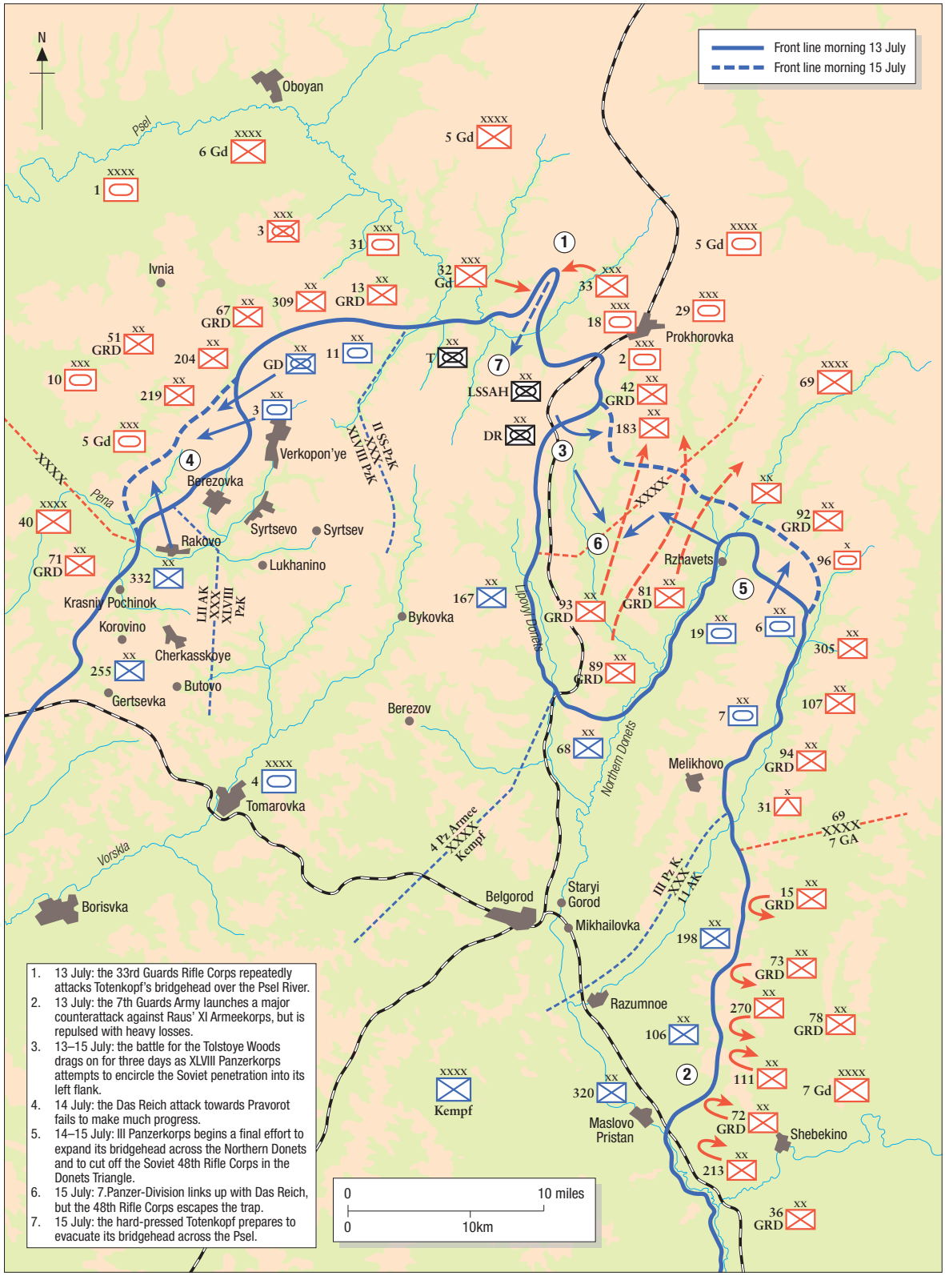
In the south, Breith's III Panzerkorps remained on the defensive, but reorganized its forces to prepare for a push west or north from the Rzhavets bridgehead. The Trufanov detachment repeatedly attacked the German bridgehead, but was repulsed. Shumilov's 7th Guards Army harassed Raus' XI Armeekorps, but achieved nothing. The day ended with both sides feeling bloodied and exhausted. Clearly, the Soviets had come off the worse in material terms but in psychological terms, the Germans were knocked off-balance by the scale of Vatutin's counter-offensive and no longer certain that they could accomplish their objectives.

HITLER CALLS IT QUITS, 13–15 JULY

13 July

The day began with heavy rains, limiting air support. The main action in the II SS-Panzerkorps sector occurred when 5th Guards Army's 33rd Guards Rifle Corps, supported by 100 tanks, began a series of counterattacks against Totenkopf's exposed *Panzergruppe*. Short on ammunition, the German tanks were forced to withdraw 6km back to the Psel bridgehead, abandoning a number of damaged tanks. The 5th Guards Army then continued to pound

The final actions, 13–15 July 1943.



1. 13 July: the 33rd Guards Rifle Corps repeatedly attacks Totenkopf's bridgehead over the Psel River.
2. 13 July: the 7th Guards Army launches a major counterattack against Raus' XI Armeekorps, but is repulsed with heavy losses.
3. 13–15 July: the battle for the Tolstoye Woods drags on for three days as XLVIII Panzerkorps attempts to encircle the Soviet penetration into its left flank.
4. 14 July: the Das Reich attack towards Pravorot fails to make much progress.
5. 14–15 July: III Panzerkorps begins a final effort to expand its bridgehead across the Northern Donets and to cut off the Soviet 48th Rifle Corps in the Donets Triangle.
6. 15 July: 7.Panzer-Division links up with Das Reich, but the 48th Rifle Corps escapes the trap.
7. 15 July: the hard-pressed Totenkopf prepares to evacuate its bridgehead across the Psel.

Totenkopf all day, suffering over 2,000 casualties and 60 tanks lost, but Totenkopf lost 29 AFVs and was immobilized. The LSSAH remained on the defensive all day, but fighting around Hill 252.2 still cost it another 330 casualties. In the late afternoon, Das Reich conducted a minor attack against the 2nd Guards Tank Corps and 183rd Rifle Division, advancing 1km.

In the south, there was heavy fighting around the Rzhavets bridgehead between III Panzerkorps and the Trufanov detachment. He-111 bombers from Fliegerkorps VIII mistakenly bombed 6.Panzer-Division, wounding its commander Generalmajor von Hünersdorff and two of his regimental commanders. Nevertheless, Breith massed his last available armour, barely 25 tanks, and attacked west from the bridgehead. By nightfall, 19.Panzer-Division had advanced 3km. Although III Panzerkorps had failed its primary mission, Kempf still hoped to encircle Soviet forces in the Donets Triangle. After prodding from Vatutin, Shumilov's 7th Guards Army attacked Raus' XI Armeekorps with eight rifle divisions and 83 tanks but suffered a humiliating setback, with over 5,000 casualties and 45 tanks lost. Raus' corps suffered 728 casualties and lost 7 StuG IIIs, but its line held firm.

In the west, XLVIII Armeekorps spent the day counterattacking against Soviet forces in the Tolstoye Woods. Von Knobelsdorff's units were showing signs of exhaustion: Westhoven's 3.Panzer-Division performed poorly in dealing with this crisis and Großdeutschland had difficulty coordinating its counterattacks. Gradually, the Germans began to surround the Soviet forces in the Tolstoye Woods, but they could not close the gap. Most of von Manstein's forces were now on the defensive, with limited offensive options remaining. Nevertheless, von Manstein ordered XXIV Panzerkorps, with its 120 tanks and assault guns, to move to the Belgorod area to reinforce either Breith or von Knobelsdorff.

On both sides of the lines, the day was not a happy one for senior commanders. Von Manstein received notice to report to Hitler's Wolfsschanze headquarters in East Prussia to discuss *Zitadelle*'s progress. Although von Manstein was upbeat, Hitler was disappointed by the lack of progress and Model's inability to continue his part of the offensive. He was also distressed

Soviet infantry in the attack across rolling terrain. Shumilov's 7th Guards Army mounted a major counterattack against Raus' XI Armeekorps on the morning of 13 July 1943 and suffered a costly defeat with over 5,000 casualties. However, Rotmistrov's failure at Prokhorovka has tended to overshadow the lacklustre performance of Shumilov's 7th Guards Army throughout *Zitadelle*. (Author's collection)

by the Allied landing in Sicily and said that forces would have to be transferred from von Manstein's command to prevent an Italian collapse. Consequently, Hitler ordered von Manstein to end *Zitadelle*. Although von Manstein normally did not argue with Hitler, he managed to convince him that Hoth and Kempf needed a few more days to complete local actions in their sectors, which enabled him to continue a reduced-scale *Zitadelle* for a few more days. In particular, he wanted to commit XXIV Panzerkorps to the fight, but Hitler rejected this. On the other side of the hill, Stalin telephoned Vatutin's headquarters demanding to know why 5th Guards Tank Army had suffered such heavy losses and wanted to put Rotmistrov on trial, but Marshal Vasilevsky interceded on his behalf. Zhukov also flew in from Moscow, looking for scapegoats, in order to remove any suspicion that perhaps he had underrated German offensive capabilities.

14 July

Despite Hitler's order to terminate *Zitadelle*, von Manstein connived to continue small-scale attacks to inflict greater damage on Katukov's 1st Tank Army and Kriuchenkin's 69th Army. Hoth ordered Hausser to remain on the defensive with Totenkopf and LSSAH, but Das Reich massed its remaining armour and made a final, futile push towards the town of Pravorot, south of Prokhorovka. Von Manstein believed that it might still be possible to roll up Soviet defences at Prokhorovka from the south. However, Das Reich's attack made only limited progress and lost 16 AFVs. Meanwhile, Vatutin decided to mass his forces to crush Totenkopf's bridgehead across the Psel and the morning began with BM-13 Katyusha rockets bombarding Totenkopf's trenches, then Soviet tanks and infantry launched repeated probing attacks against the perimeter.

In the west, XLVIII Panzerkorps continued trying to encircle Soviet forces in the Tolstoye Woods, but von Knobelsdorff's divisions turned in a sub-par performance. Panzer-Regiment 39 fought its last action with 36 Panthers against the 86th Tank Brigade; 28 T-34s were destroyed but 6 Panthers were lost and 10 more broke down. Von Manstein developed Operation *Roland*, intending to commit XXIV Panzerkorps to reinforce XLVIII Panzerkorps, then push north to Oboyan through Katukov's weakened 1st Tank Army. However, von Manstein was unaware that additional Stavka reserves were pouring into this sector.

In the south, the Trufanov Detachment repeatedly attacked III Panzerkorps in the Rzhavets area, but could not budge the defenders. After absorbing these blows, 6.Panzer-Division attacked north-east from Rzhavets and captured the town of Aleksandrovka. During the action, the last 8 operational Tigers of schwere Panzer-Abteilung 503 demolished the 53rd Guards Tank Regiment,

Knocked-out German PzKpfw IV medium tanks abandoned on the battlefield. While Kursk did not provide the death knell of the *Panzer-Divisionen*, the fact that two-thirds of von Manstein's armour was unavailable for some time after Kursk, either due to damage or mechanical fault, would prove to be a serious liability when Vatutin began his own counter-offensive in early August. (Courtesy of the Central Museum of the Armed Forces, Moscow via Stavka)

Burnt-out T-34s from the 18th and 29th Tank corps littered the battlefield of Prokhorovka after Rotmistrov's failed counterattack. Rather than a pure tank vs tank battle as often portrayed, Prokhorovka was a Soviet hasty attack against a German hasty defence. This type of counterattack, which relied upon mass instead of combined-arms tactics, had already been proven not to work against the Germans in 1941–42 and failed once again at Kursk. As the Duke of Wellington famously said, 'They came on in the old way and we beat them in the old way.' (Author's collection)

destroying 36 T-34s for the loss of 1 Tiger. Later during the day, 19.Panzer-Division pushed west across the Northern Donets, threatening to cut off the five rifle divisions of General-major Zinovy Z. Rogozny's 48th Rifle Corps in the Donets Triangle. Belatedly, the 69th Army ordered Rogozny to withdraw northwards to avoid encirclement.

15 July

Another rainy day limited air support and deep mud along ravines limited tactical mobility. The battle for the Tolstoye Woods finally ended, but XLVIII Panzerkorps failed to completely encircle the Soviet forces in the forest. Nevertheless, this three-day fight cost the Soviets over 6,000 casualties. Von Knobelsdorff achieved an incomplete tactical victory that secured his left flank at the cost of 750 casualties and 60 AFV lost. After this, XLVIII Panzerkorps was in no condition to continue offensive operations.

The advance of Breith's III Panzerkorps continued north-west as Soviet resistance in this sector faded due to 48th Rifle Corps' retreat. When reconnaissance troops from Das Reich and 7.Panzer-Division met near Leski at noon, the pincers closed around an empty bag. Most of the 48th Rifle Corps had escaped.

In the final actions of *Zitadelle*, Totenkopf began to slowly evacuate its bridgehead across the Psel, although this was not completed until the night of 17/18 July. Hitler recognized the futility of Operation *Roland* and simply started taking resources away from von Manstein, so he was forced to shift onto the defensive. On 17 July, II SS-Panzerkorps was pulled out of the line and LSSAH alerted for transfer to the West. Soon thereafter, Großdeutschland was transferred to Heeresgruppe Mitte. Just two days after *Zitadelle*'s last gasp, the Soviet South-West Front attacked 1.Panzerarmee at Izyum and the Southern Front began attacking across the Mius River. Hoth's 4.Panzerarmee no longer had the strength to hold the terrain gained during *Zitadelle* and was forced to retreat to its start line by 23 July. A total of 49 disabled Panthers were blown up because they could not be moved in time. As one Soviet offensive followed another, the Wehrmacht's best units had no time to recover from the losses at Kursk and it became clear that Germany had irretrievably lost the initiative on the East Front.

AFTERMATH

ANALYSIS

Von Manstein's forces achieved nothing of lasting operational value during the 12 days of *Zitadelle*, but suffered 33,708 casualties, including 6,643 dead or missing – over 9 per cent of their starting strength. The subject of German armour losses has long been controversial, between erroneous Soviet claims that Kursk was the 'death ride' of the Panzers and more recent efforts to minimize German losses. Niklas Zetterling emphasized *Totalausfalle* (vehicles totally destroyed) in his study of Kursk, claiming Heeresgruppe Süd lost only 190 tanks and assault guns during *Zitadelle*. Christopher Lawrence's massive study of Kursk indicates that 193 tanks (including 42 Panther, 8 Tigers), 16 assault guns and 17 Marder tank destroyers were destroyed while another 1,073 tanks and 176 assault guns were damaged, some more than once. Yet, the most important point is that three days after *Zitadelle* ended, Hoth and Kempf only had 459 tanks, 118 assault guns and 30 Marders operational, meaning that the offensive cost von Manstein 60 per cent of his armour. Insufficient spare parts meant that many damaged tanks never served again and were instead cannibalized. The lesson here – which Guderian tried to teach Hitler – was that a nation which could not provide adequate numbers of basic items like steel track pins to its forward armour units had no business conducting an all-out offensive.

Although Kursk has often been called the 'greatest clash of armour in history', much of the fighting was dominated by mines, infantry combat, artillery and air attacks. German planning for *Zitadelle* was seriously flawed at both the operational and tactical levels, failing to anticipate the effect of water obstacles and often dissipating combat power across diverging axes of attack. The entire mission of Armee-Abteilung Kempf was poorly framed from the start, which is why it never came close to accomplishing its mission. Von Manstein failed to ensure that all tactical actions

The Soviet victory monument near Hill 252.2 south-west of Prokhorovka was completed in 1995. While visitors are greeted with symbols of Soviet military power and tradition, they are not apprised that two Soviet tank corps were sacrificed at this site in July 1943 when the 5th Guards Tank Army conducted its poorly planned counteroffensive. (Author's collection)

were contributing to the larger goal, instead allowing the corps commanders to fight almost private battles.

While many Soviet units were mauled, Heeresgruppe Süd consistently allowed enemy units to escape from its grinding pincer attacks. Reports from Heeresgruppe Süd suggest that 4.Panzerarmee and Armee-Abteilung Kempf captured over 30,000 prisoners during *Zitadelle*, but this was a far cry from the massive encirclement battles of 1941–42. After the war, von Manstein claimed that Kursk was a 'lost victory' and tried to suggest that Hitler snatched defeat from the jaws of victory. This assessment has never held water since it ignores the reality that Heeresgruppe Süd lacked sufficient infantry to hold the ground captured, or reserves to exploit a deep breakthrough or the logistics to sustain a longer battle. A sober analysis of the growing imbalance between the Wehrmacht and the Red Army provides ample proof that Hoth's 4.Panzerarmee never had a realistic chance of accomplishing its mission of reaching Kursk.

The performance of the Voronezh Front during the defensive phase of Kursk produced mixed results. Vatutin's forces suffered 116,971 casualties, including 53,328 dead or missing, which was about 13 per cent of the committed forces. Available data indicates that Voronezh Front and Konev's reserves committed over 2,500 tanks and self-propelled guns to the battle, of which 1,293 tanks (including 854 T-34s) and 57 self-propelled guns – some 52 per cent – were destroyed. On 18 July, Vatutin had 607 tanks and SP guns available, meaning that stopping *Zitadelle* cost him 76 per cent of his armour. While both sides were left with roughly 600 AFVs in the Belgorod sector, the difference was that Stavka was sending Vatutin several fresh tank corps whereas von Manstein had no armoured reinforcements in the pipeline and had to transfer his best units to other fronts.

Soviet defensive tactics were much improved at Kursk although the *Pakfront* was far from impervious. Soviet mine warfare proved a great success that deprived the Panzers of much of their mobility. While Vatutin's defence failed to 'impale' Hoth's armour as envisioned by Zhukov, it did prevent Hoth from seizing any objectives of real tactical value or destroying any of the Voronezh Front's formations. From the point of view of battle command, Vatutin committed his reserves far too quickly and often head-on at the German spearheads. If one of Katukov's tank corps had been committed against LII Armeekorps' overextended infantry divisions, this would likely have caused far more trouble than the attack into the Tolstoye Woods, which was bad enough. The Red Army was still learning how to conduct combined-arms warfare, but still achieved a costly but useful victory at Kursk which set the stage for greater triumphs to follow.

THE BATTLEFIELD TODAY

The Soviet government ignored the Kursk battlefield for 50 years and did nothing to encourage battlefield tourism in this area. However, this attitude began to change after the collapse of the Soviet Union and the need to re-energize Russian nationalism. In an effort to bolster Russian pride in the victories of the Great Patriotic War, the new Russian government began building a number of large-scale monuments commemorating the battle of Kursk. Yet while foreign tourism of the Kursk battlefield is more common now, it is hardly encouraged. Belgorod has a number of decent hotels but options for getting there are still limited since the city has only a small airport for domestic flights; most foreign visitors will have to fly into Moscow and take the overnight train to Belgorod. Kharkov does boast an international airport, but at the time of writing the tensions along the Russia-Ukraine border preclude this as a point of entry to reach the Kursk battlefield.

The main site chosen to commemorate the battle of Kursk was just outside Prokhorovka, near Hill 252.2, where a large victory monument, topped with a gold-plated dome, was completed in May 1995. The approach to the victory monument is guarded by large busts of Zhukov, Kutusov and Nevsky, even though Zhukov's role in the battle of Kursk was only advisory. Vatutin, Katukov, Chistiakov, Shumilov and Rotmistrov – the actual commanders – are nowhere in sight. Outside the victory monument, there is a large rectangular display area with a small collection of armoured fighting vehicles (including five T-34/85, two Su-100, one SU-152, one JS-2 and one JS-3) and artillery; the fact that hardly any of these types of AFVs were used by the Red Army in the battle of Kursk indicates the low priority of historical accuracy in this memorial project.

Inside the north-east corner of Prokhorovka, the Orthodox Church of Peter and Paul was also built in 1995; its inner walls are inscribed with lists of the names of Soviet soldiers killed in the battle of Kursk, while outside there are plaques listing units and commanders involved. Right next door to the church is a state-run military history museum, which was opened in 2010. In front of the museum is a large sculpture, which perpetuates the myth of Soviet T-34s ramming German Tiger tanks at Kursk. Inside, the museum there

The state-run military history museum in Prokhorovka perpetuates the myth that T-34 tanks rammed Tiger tanks during the battle of Kursk with this iconic sculpture. Although there was one documented attempt at ramming by a T-34, no Tiger tanks were destroyed at Prokhorovka by this tactic. The need to display T-34s emblazoned with 'For the Motherland!' slogans on their hulls running over Tiger tanks is part of the new historical orthodoxy being promulgated at Prokhorovka, as Soviet-era mistakes are excised. (Author's collection)

Another sculpture at the Prokhorovka museum depicts Soviet Desant troops jumping from a T-34/76 in the heat of battle. This sculpture bears some resemblance to the actual historical reality. (Author's collection)

is a T-34/76 tank and small collections of anti-tank guns and small arms. An outdoor section of trench work and a monument to wounded tankers complete the tableau.

The Prokhorovka battlefield today is an intentional mixture of Russian nationalism, Orthodox religious symbolism and military mythology. The memorials at Prokhorovka are intended to convey the message of Russian sacrifice and military power, with little effort expended on explaining the actual course of the battle. The fact that the sleepy town of Prokhorovka boasts no hotels and that the nearest lodging is 50km away in Belgorod also highlights that these memorials are primarily for internal consumption – not foreign tourists.

Outside Prokhorovka, there is also a smaller memorial complex located on the M2 highway, 5km north-west of Yakovlevo. It is fronted by another T-34/85 tank on a plinth, flanked by a pair of ML-20 howitzers. The site also has a plinth-mounted Yak-1 fighter. In Belgorod, there is a Diorama Museum of the battle of Kursk, which is also fronted with an anachronistic JS-3 tank. Nearby is an La-5 fighter that looks like it was sloppily repainted by children. Next to the museum is Victory Park, which has more statutes of Zhukov and a monument to the 1979–89 Soviet–Afghan War. If I had to use one word to sum up Russian efforts to preserve the battlefield history of Kursk, it would be 'inauthentic'.

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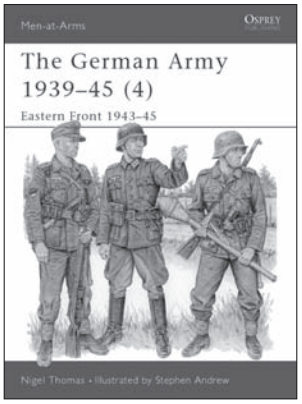

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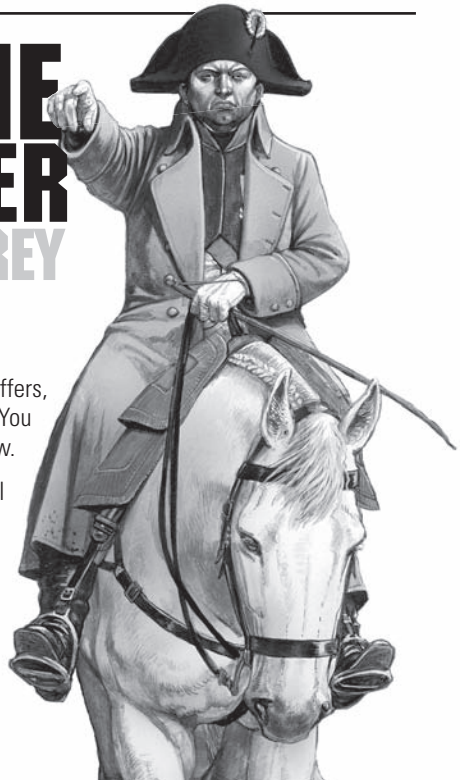

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